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Income Instability of Lone Parents, Singles and Two-Parent Families in Canada, 1984 to 2004

by René Morissette and Yuri Ostrovsky

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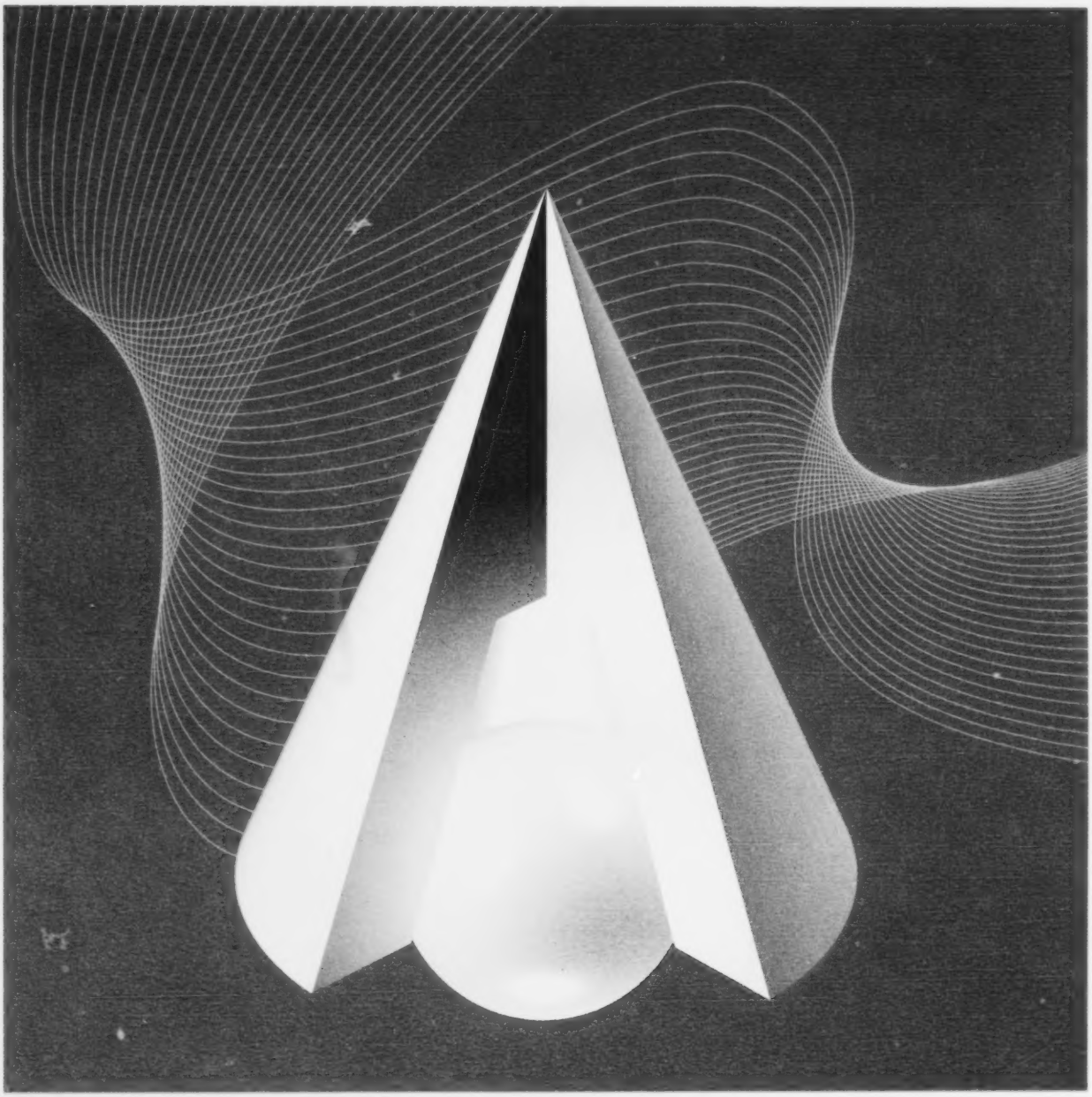

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Abstract

This paper examines income instability of lone parents, singles and two-parent families in Canada in the past two decades using tax data. We attempt to answer the following questions: Has there been a widespread increase in earnings instability among lone parents (especially lone mothers) and unattached individuals over the past 20 years? How do the trends in earnings instability among lone parents and unattached individuals compare to the trends among the two-parent families? What is the role of government transfers and the progressive tax system in mitigating differences in earnings instability across different segments of the earnings distribution among the above-mentioned groups? We find little evidence of a widespread increase in earnings instability in the past two decades and show that government transfers play a particularly important role in reducing employment income instability of lone mothers and unattached individuals.

Keywords: earnings instability, employment instability, employment insurance, social assistance.

Executive summary

The majority of Canadians spend a substantial period of their lifetime in a partnership and for this reason, we argue in Morissette and Ostrovsky (2005) that despite the importance of analysing earnings inequality and instability of individuals, it is also important to study these issues at the *family* level. Eventhough a significant minority of Canadians either remain unmarried or become divorced (or widowed), many of these individuals become lone parents. Lone parents and unattached individuals constitute a considerable portion of the population and are potentially more vulnerable to the effects of income instability as they may have fewer income smoothing options at their disposal.

We attempt to answer the following questions: Has there been a widespread increase in earnings instability among lone parents (especially lone mothers) and unattached individuals over the past 20 years? How do the trends in earnings instability among lone parents and unattached individuals compare to the trends among the two-parent families? What is the role of government transfers in mitigating differences in earnings instability across different segments of the earnings distribution among the above-mentioned groups? What is the role of the progressive tax system?

Overall, our study based on the Longitudinal Administrative Data base (LAD) paints a fairly complex picture of earnings instability dynamics in Canada over the past 20 years with no indication of widespread increases. Earnings instability varies considerably across age groups and income levels in both direction and magnitude. We find that family earnings instability is the lowest among two-parent families and highest among lone mothers, which is consistent with the notion of the vulnerability of lone mothers, particularly young lone mothers with further implications for family consumption. The earnings instability of unattached men has declined in recent years but is still somewhat higher than the earnings instability of unattached women.

Similar to Morissette and Ostrovsky (2005), we find that earnings instability varies considerably with employment income and is much higher among families in the bottom tertile (one third of all families) than among families in the top tertile. The magnitude of these differences varies for different age groups and family categories; however, it is fair to say that for two-parent families the bottom–top earnings instability ratio is generally smaller mostly due to lower instability in the bottom tertile.

Employment Insurance (EI) and Social Assistance (SA) are two important programs which partially compensate for earnings losses related to job loss. Combined with government transfers in the form of refundable tax credits and Canada Child Tax Benefit (CCTB), they provide a substantial reduction in income losses and thus reduce income volatility. The progressive tax system further reduces income volatility by restricting both income gains and income losses.

In all age groups, *social assistance appears to be the single most important factor reducing income instability of lone mothers*. For lone mothers, SA plays a much greater role in reducing income instability than for the two-parent families. In the youngest age group, for instance, it reduces instability in the bottom tertile by 32%. As social assistance has little effect on the lone mothers in the top tertile, this also results in the largest drop in the differences between bottom and top tertiles (23%). The impact of social assistance on instability is somewhat smaller for the 45-to-49 age group although it is still larger than the impact of any other factors.

Employment insurance also lowers income instability of lone mothers. In all age groups, it is the second most important factor mitigating instability among lone mothers in the bottom tertile. Overall, the reduction in instability (relative to market income) due to EI and SA in the bottom tertile varies between 32% and 48%.

The role of the progressive tax system has two different aspects. On the one hand, in all age groups, the instability of the after-tax income in the bottom tertile is lower than the instability of the total income although the reduction is 6% at most, and in some age groups it is close to zero. On the other hand, in some age groups the tax system has a larger effect in the top tertile, so the after-tax difference between bottom and top tertiles is actually larger for the after-tax income than for the before-tax income.

Among persons with positive earnings in all six years of the observation period considered, the most striking difference between the results for unattached individuals and those for lone parents is that for the former *employment insurance is a far more important factor reducing instability than social assistance*. Compared to the market income instability, the combined reduction due to EI and SA is 20% to 30% among unattached men (depending on age) and 15% to 27% among unattached women in the bottom tertile. As with lone parents, the tax system reduces income instability in both bottom and top tertiles so the impact on relative instability of the unattached individuals is small, particularly for men.

I. Introduction

Most current income inequality studies make an important distinction between permanent and transitory income components. In contrast to the former, which reflects long-term earnings prospects and is directly related to income inequality, the latter reflects short-term variations in income and is usually associated with income *instability*. While the presence of high income instability does not necessarily indicate economic hardship, if income instability is mostly caused by negative income shocks (or, more generally, employment instability) it may lead to serious consumption losses, particularly among low income households that have few consumption smoothing options available to them. Indeed, as we show in a companion study (Morissette and Ostrovsky, 2005), employment instability appears to be behind much of the earnings instability among two-parent families located at the bottom of the earnings distribution, so by analyzing instability trends and comparing instability across different segments of the earnings distribution we may gain some additional insights into the well-being of Canadians.

It is probably fair to say that most Canadians would like to find a partner and raise children in a traditional two-parent family. The majority of Canadians spend a substantial period of their lifetime in a partnership and for this reason, we argue in Morissette and Ostrovsky (2005) that despite the importance of analysing earnings inequality and instability of individuals it is also important to study these issues at the *family* level. Based on our analysis of married couples in the tax data from the Longitudinal Administrative Data base (LAD) we reach several important conclusions. On the one hand, there has been a rise in family earnings inequality related to the Canadian labour market and demographic changes, which has been only partially offset by the tax and transfer system. On the other hand, there seems to be little support for the view that Canadian families experienced a widespread increase in earnings instability over the last two decades. Family income instability dynamics vary considerably across age groups and segments of the income distribution. For instance, families in the bottom tertile of the family income distribution measured during the four-year period *prior* to the observation period display much more unstable employment income than their counterparts in the top tertile although the stabilizing role of wives' employment seems to be more pronounced among the former. Finally, the existing tax system and government transfers substantially reduce the differences in instability observed across different segments of the earnings distribution.

Yet not all Canadians belong to traditional families, at least at some point of their lives. A significant minority of Canadians either remain unmarried or become divorced (or widowed); many of these individuals become lone parents. Lone parents and unattached individuals constitute a considerable portion of the population and are potentially more vulnerable to the effects of income instability as they may have fewer income smoothing options in their disposal. Almost a quarter of employed lone mothers (who represent the vast majority of lone parents) had low weekly earnings[1] in 2000 (Chung, 2004). Lone parents may be particularly affected by inflexible work hours, long commute and, in some communities, by limited access to daycare. All these factors and the general strain of lone parenthood are likely to reduce their employment prospects and make them more vulnerable to earnings instability. More than half of low-paid

1. Less than $375 weekly or less than $10 per hour assuming 37.5 hour work week.

lone parents live in low-income families[2] although the situation of lone mothers was better in 2000 compared to 1980 (Chung, 2004; Myles et al., 2006).

Unattached individuals are also among the most vulnerable, particularly those under 40 who come from low-income families. In 2000, 22% of men under 40% and 31% of women under 40 were low-paid workers. Over 80% of low-paid unattached women were also in the low-income category compared to 14% of low-paid married women. The proportion of unattached low-paid men who were also in low income was slightly lower, 78% (Chung, 2004).

The fact that so many lone parents and unattached individuals are low-paid and live in low-income suggests that they are also likely to experience higher financial insecurity. The purpose of this study is to compare and contrast income instability of lone parents and unattached individuals to the two-parent family income instability and document income instability dynamics for these groups in the past two decades. We also analyse the role of government transfers and family benefits in reducing earnings instability among these groups.

More specifically, we attempt to answer the following questions: Has there been a widespread increase in earnings instability among lone parents (especially lone mothers) and unattached individuals in the past 20 years? How do the trends in earnings instability among lone parents and unattached individuals compare to the trends among the two-parent families? What is the role of government transfers in mitigating differences in earnings instability across different segments of earnings distribution among the abovementioned groups? What is the role of the progressive tax system?

Our results do not support the notion of a widespread increase in earnings instability among lone parents and unattached individuals in the past 20 years. The changes in earnings instability vary considerably with age and family status. We also confirm our previous conclusions about the absence of a widespread increase in earnings instability among two-parent families. We find that government transfers play a dominant role in reducing differences in instability between families in the bottom earnings tertile and families in the top earnings tertile. However, the relative weight of employment insurance, social assistance, family benefits, and child tax credits is different for lone parents and unattached individuals. Finally, we find that the tax system plays a relatively minor role in attenuating the differences in income instability between bottom and top tertile of the earnings distribution.

II. Data and methods[3]

In this study, we use a 10% version of the Longitudinal Administrative Data base (LAD) based on tax data available from the Statistics Canada Small Area and Administrative Data Division (SAAD). LAD files provide detailed information about both individual and family income for those who filed income tax forms between 1982 and 2004 (the last year available at the time of writing). The 20% sample is randomly selected among all tax filing Canadians and once selected, individuals remain in the sample for as long as they appear on SAAD's annual T1 Family File

2. Low income cut off used is the income level at which a family spends 20 percentage points more than the average of its before-tax, after-transfer income on basic necessities (Chung, 2004).

3. More details can be found in Morissette and Ostrovsky (2005).

(T1FF). Census families are formed from the personal data that filers provide on other family members. Filers are attached to their spouses (legal and common-law) by spouses' social insurance number or by matching age, sex, address and marital status. The panel nature of LAD, its size and the richness of income data make it very attractive for the studies of income inequality and instability. The most serious drawback of LAD is a very limited range of demographic variables.

We identify three sets of lone parents and unattached individuals between ages 25 and 49: those who filed tax returns in each year from 1984 to 1989, those who filed tax returns in each year from 1994 to 1999, and those who filed tax returns in each year from 1999 to 2004. We only consider those lone parents and unattached individuals whose family status did not change during the six-year period they were present in the sample.[4] Similarly, we identify two-parent families with husbands aged 25 to 49, whose family status did not change in six years they were present in the sample. As explained in Morissette and Ostrovsky (2005), this allows us to focus on earnings instability due to labour market conditions as opposed to life course events. Furthermore, we exclude families with self-employment income to measure instability associated with paid employment.

An important question is whether families with zero earnings in one or more years should be excluded from the sample. Considering families (unattached individuals) with only positive earnings in all six years significantly reduces the size of the sample, particularly in the case of lone parents (Table 1); however, it has an advantage of allowing us to work with log-earnings models. Under the assumption that the families who have zero earnings in one or more periods do not differ in any systematic way from the families who have positive earnings in each year, this sample is still representative of the general population although admittedly this is a strong assumption.

An alternative is to allow families to have zero earnings in one or more periods and analyze a model of earnings in levels (as opposed to log earnings). To check the robustness of our main results, we consider a broader sample in which we allow families (unattached individuals) to have zero annual earnings in up to three years over a six-year period.[5]

In the second part of the study in which we analyze the effect of the progressive tax system and government transfers on earnings instability, we also drop a small percentage of families (or unattached individuals) with non-positive market income.[6]

To investigate how earnings instability varies across segments of the age and earnings distribution we classify two-parent families, lone parents and unattached individuals into five age

4. It is true, however, that marrying or entering a partnership is a notable vehicle for escaping low income (Bane and Ellwood, 1986).

5. Families with more than three years of zero earnings are not likely to have strong attachment to the labour market and less likely to be relevant to the issue of earnings instability.

6. However, we drop this restriction in our broader sample.

groups (25 to 29, 30 to 34, 35 to 39, 40 to 44 and 45 to 49) and three employment income tertiles within each age group.[7]

One of the important aspects of earnings instability smoothing is the role of government transfers, in particular Employment Insurance (EI) and Social Assistance (SA). Unfortunately, the Social Assistance variable is only available starting in 1992. Moreover, the EI program underwent serious changes in 1993 that considerably reduced the number of people eligible for EI benefits. Hence, in the part of the analysis related to the role of different smoothing mechanisms (including government transfers) we only consider two six-year periods: 1994 to 1999 and 1999 to 2004.

The method used in this study is very similar to the one used in Morissette and Ostrovsky (2005) and based on the earnings decomposition introduced in Gottschalk and Moffitt (1994). On the first step, we assume that log earnings are generated by a random effects model:

$$y_{it} = f_i(age_{it}) + e_i + u_{it},$$

where f_i is a quadratic function of age, so that the model assumes a common age-log earnings profile but allows for different intercepts e_i for each family (standard random effects model assumptions also apply). The last term in the model is associated with transitory earnings (see Gotschalk and Moffitt, 1994; Beach, Finnie and Gray, 2003; and Morissette and Ostrovsky, 2005); by estimating $\hat{u}_{it}$ and computing $\overline{Var(\hat{u}_{it})}$ we can obtain a simple estimate of earnings instability on either individual or family level. Morissette and Ostrovsky (2005) note that the variance is not the only dispersion measure that can be used. Another dispersion measure considered in their study is the mean absolute deviation (MAD) (from the mean). Our measure of earnings instability is

$$\overline{MAD_i} = \left(\frac{1}{N}\right)\sum_{i=1}^{N}\left[\left(\frac{1}{T}\right)\sum_{t=1}^{T}\left|\hat{u}_{it}\right|\right].$$

The advantage of MAD is that it has a simple intuitive interpretation: it measures approximately the average deviation (in percentage terms) of actual earnings from expected earnings during the observation period.

To check the robustness of our results, we also estimate $y_{it}^{*} = f_i(age_{it}) + e_i^{*} + u_{it}^{*}$, where y_{it}^{*} is family (individual) earnings (as opposed to log earnings) and then compute

$$\overline{MAD_i}^{*} = \left(\frac{1}{N}\right)\sum_{i=1}^{N}\left[\left(\frac{1}{T\cdot\bar{y}_i^{*}}\right)\sum_{t=1}^{T}\left|\hat{u}_{it}^{*}\right|\right],$$

7. Two-parent families are grouped into the age groups based on the age of the husband; employment income tertiles are based on family earnings averaged over a six-year period.

where $\bar{y}_i^*$ is average family (individual) earnings over the six-year period. Note that $\overline{MAD_i}^*$ has to be rescaled by $\bar{y}_i^*$ to account for differences in the levels of earnings among families. The results from the latter model are presented in the Appendix. While both $\overline{MAD_i}$ and $\overline{MAD_i}^*$ are calculated for the sample of families with positive earnings, $\overline{MAD_i}^*$ is also used to analyze the sample that includes zero earnings.

In our analysis of instability and the effects of government transfers and tax system, we emphasize not only the overall levels of instability but also the differences in instability between bottom and top tertiles. The instability in the top tertile provides a reasonable benchmark for assessing how well families in the bottom tertile fare and to what degree transfers and the tax system mitigate earnings instability of these families. We introduce a simple concept of *relative* earnings instability (or relative income instability), by which we mean the bottom tertile/top tertile ratio of instability measures (such as $\overline{MAD_i}$), that is

$$relative\ instability = \frac{\overline{MAD_i}^{bottom}}{\overline{MAD_i}^{top}}.$$

We focus on relative earnings (income) instability throughout our analysis of the role of different factors affecting the earnings instability of lone parents and unattached individuals.[8]

III. Results

III.1 Earnings instability in the past two decades

III.1.1 Two-parent families

In Table 1, we present our measure of earnings instability $\overline{MAD_i}$ computed for three six-year periods, 1984 to 1989, 1994 to 1999 and 1999 to 2004. The results for the two-parent families confirm our previous findings in Morissette and Ostrovsky (2005): there is little indication of a widespread increase in instability in the past 20 years. Among the families with husbands aged 25 to 34 the instability has increased by about 12% to 13%; however, for older couples $\overline{MAD_i}$ has either remained unchanged or, as in the case of couples with husbands aged 45 to 49, actually fell by about 6%.

Further confirmation of our previous results is in Table 2 where we present changes in earnings instability for different income tertiles. We do observe a small increase in earnings instability for all age groups under 40 in the top tertile between 1984 to 1989 and 1999 to 2004; however, there

8. Formula for tests: $P(\hat{R} \geq 1) = 1 - P\left(z \geq \frac{\hat{R}-1}{\sqrt{\hat{V}(\hat{R})}} \right)$, where $\hat{V}(\hat{R}) \approx \frac{1}{\hat{\theta}_2^2}\left[\hat{V}(\hat{\theta}_1) + \hat{R}^2\hat{V}(\hat{\theta}_2)\right]$, $\hat{R} = \frac{\hat{\theta}_1}{\hat{\theta}_2}$ and $\hat{\theta}_1, \hat{\theta}_2$ are independent.

has been virtually no change in the earnings instability for the bottom and middle tertiles for families with husbands aged 35 and over and a small increase for younger families.

III.1.2 Lone parents

Turning now to the results for lone parents, we note that, in general, earnings instability among lone mothers is greater than among any other category, including two-parent families (Table 1). As mentioned above, the vast majority of lone parents (about 90%) are lone mothers whose ability to smooth the flows of earnings is limited so the earnings instability of lone mothers is a particular concern. Although the past two decades have been characterized by rising employment and declining low-income rates among lone mothers, gains in employment and earnings were much larger among married mothers than among lone mothers (Myles et al., 2006). In addition to that, most of the employment and earning gains of lone mothers went to lone mothers aged 40 and over.

Although changes in earnings instability differ considerably across different age groups, the instability among young lone mothers (aged 25 to 34) rose almost by a quarter, with equal increases between the late 1980s and 1990s, and late 1990s and early 2000s (Table 1). We find the highest earnings instability among lone mothers aged 25 to 29 in the bottom tertile (Table 2); the average annual deviation from the mean earnings in this group was 58 log points during the 1999 to 2004 period. It was also higher in the recent years than in the 1980s and 1990s. In fact, the increase in instability among bottom tertile lone mothers aged 25 to 29 between 1984 to 1989 and 1999 to 2004 was higher than in any other age group in this tertile (about 16%). In addition, for all lone mothers younger than 35, earnings instability increased in all tertiles, including the top tertile where earnings instability for lone mothers aged 25 to 29 rose by 60%. The picture is much different, however, for older lone mothers. For lone mothers 40 and older, the increase in instability is only observed in the bottom tertile and the magnitude of the increase is much smaller than for younger lone mothers. In the middle tertile, earnings instability in this age group either dropped or remained unchanged.

One of the salient aspects of our findings is that the earnings instability of lone mothers in the bottom tertile is, in some cases, approximately double the earnings instability of the two-parent families (Figure 2). For instance, for the 35 to 39 age category in 1999 to 2004, $\overline{MAD_i}$ computed for two-parent families is 0.22, while $\overline{MAD_i}$ computed for lone mothers is 0.43. Earnings instability in the top tertile, on the other hand is at 0.12, the same for both demographic categories. It is clear that earnings instability is a much bigger issue for the lone parents in the bottom tertile of the earnings distribution than for the two-parent families in the bottom tertile.

Not only is the earnings instability of young lone parents much higher than that of two-parent families, the difference in earnings instability between top and bottom tertiles among young lone parents (relative instability) is much larger than among two-parent families. The relative instability ratio described above was close to two for young two-parent families in 1999 to 2004 compared to almost three for young lone mothers in 1999 to 2004, and almost four for young lone mothers in 1984 to 1989. However, while in 1984 to 1989 relative earnings instability of lone mothers was generally decreasing with age, it was no longer true in 1999 to 2004.

III.1.3 Unattached individuals

Like lone parents, unattached individuals are arguably more vulnerable to job loss than two-parent families who can often rely on two incomes. On the other hand, unattached individuals may be more flexible in their choice of the place of work and work hours than lone parents. Not surprisingly, the earnings instability of unattached women is lower than that of lone mothers but generally higher than that of two-parent families. Table 2 also shows that unattached men under 35 have somewhat higher earnings instability than unattached women in all tertiles. However, the instability dynamics have been quite different for unattached men and women. In the aggregate, the earnings instability of unattached men has declined over the past two decades (although the magnitude of the decline is modest) the earnings instability of unattached women aged 30+ has risen (Table 1).

Breaking the trends down by employment income tertiles, it appears that the overall decline in men's earnings instability reflects mostly lower earnings instability in the bottom tertile (for all age groups). The earnings instability in the middle tertile has remained virtually unchanged, while the earnings instability in the top tertile has risen in all age groups. Similarly, the increase in earnings instability among unattached women was by no means universal. The earnings instability of women aged 30 and over in the bottom tertile remained virtually unchanged, and most of the increase is due to the rise in the middle and top tertiles. As a result, relative earnings instability was lower in 1999 to 2004 than in 1984 to 1989 for unattached women in all age groups.

Overall, Table 2 paints a fairly complex picture of earnings instability dynamics in Canada over the past twenty years with no indication of widespread increases. Earnings instability varies considerably across age groups and income levels in both direction and magnitude. During the 1999-to-2004 period, family earnings instability was the lowest among two-parent families with husbands aged 40 and over and located in the top tertile, and highest among lone mothers aged 25 to 29 and located in the bottom tertile. This is consistent with the notion of the vulnerability of lone mothers, particularly young lone mothers with further implications for family consumption. The earnings instability of unattached men has declined in recent years but is still somewhat higher than the earnings instability of unattached women.

Figure 1 shows that among the 36 to 39 age group, lone mothers experience the highest earnings instability, which has also been growing over the past two decades. Two-parent families, on the other hand, have the lowest earnings instability and it has remained virtually unchanged since the late 1980s. Unattached men and lone fathers experienced about the same level of earnings instability in the 1980s and 1990s but during the 1999-to-2004 period, the earnings instability of lone fathers rose while the earnings instability of unattached men fell.

It is important to keep in mind that the results above have been obtained for a sub-sample of families (individuals) that had positive family earnings in all six years. In Section 4, we will discuss results for a broader sample which includes families with zero earnings in some of the years.

III.2 Taxes, government transfers and instability

The Employment Insurance (EI) and Social Assistance (SA) are two important programs which partially compensate for earnings losses related to job loss. Combined with government transfers in the form of refundable tax credits and Canada Child Tax Benefit (CCTB), they provide a substantial reduction in income losses and thus reduce income volatility. The progressive tax system further reduces income volatility by restricting both income gains and income losses. Similar to Morissette and Ostrovsky (2005), we define several income concepts:

1. family earnings;
2. market income, which includes earnings, pension and superannuation income, dividends, investment income, limited partnership (net) income, rental income, alimony or separation allowance and other types of income;
3. market income plus EI;
4. all of the above plus SA;
5. all of the above plus refundable tax credits, which includes goods and services tax credits and provincial refundable tax credits;
6. all of the above plus CCTB, which includes child tax benefits and family benefits;
7. total income (before tax);
8. total income (after tax); and
9. family size adjusted after-tax income.[9]

We then estimate our model for different income concepts and compare instability (both relative and in absolute terms) for each of these concepts to gauge the effect of different government transfers and the tax system by tracking the changes in instability across income concepts from the market to total after-tax income.

III.2.1 Two-parent families

Our first observation is that there has been little change in the differences in instability between top and bottom tertiles in 1999 to 2004 compared to 1994 to 1999 for two-parent families. In all age groups, earnings instability as measured by $\overline{MAD_i}$ is at least 90% larger in the bottom tertile than in the top tertile (Table 3). The differences in market income instability are slightly smaller but for all groups they are still in the 73% to 83% range in 1999 to 2004.

Employment Insurance reduces instability for all families in the bottom tertile.[10] In fact, in the bottom tertile, EI has the largest mitigating effect among the youngest couples (husbands aged 25 to 29 years). In contrast to other age groups, however, the effect of EI on this age group is also strong in the top tertile. Hence, if we look at the bottom/top difference in instability for the market income plus EI, it is higher for the families in this age group than in any other group.

The effect of SA appears to be to be somewhat stronger among young couples (25 to 34 years) than among older ones. However, SA substantially reduces both instability and the differences in instability between bottom and top tertiles in *all* age groups. The effect of SA on relative

9. The after-tax income divided by the square root of family size.

10. The stabilization role of EI is much smaller in the top tertile because of much smaller replacement rates.

instability is stronger because SA has no effect on the two-parent families in the top tertile (as well as in the middle tertile).

In contrast to the effects of SA, the role of tax credits in reducing income instability seems to be small. The only age group where tax credits play any role are young families with husbands aged 25 to 29 years.

During the 1999 to 2004 period, family benefits also lowered employment income instability particularly among families in the 30-to-44 age range, which are most likely to have small children. For these couples, family benefits had the largest effect on reducing the differences between bottom and top tertiles by reducing relative instability by about 20 points. For the 35-to-39 and 40-to-44 age groups, the reduction in instability in the bottom tertile due to family benefits is also substantial.

Comparing total (before-tax) income instability in the bottom tertile across all age groups, we observe that the instability of total income is 25% to 36% lower than the instability of market income.[11] In other words, government transfers reduce the two-parent market income instability in the bottom tertile by at least a quarter and for the two-parent families with husbands younger than 34 by more than a third. For all age groups, relative income (before-tax) instability is less than 1.45 and for the 30-to-34 age group, it is as low as 1.27. Compared to earnings instability, EI, SA and other government transfers reduce the bottom tertile/top tertile ratio from about 1.73 - 1.83 to 1.27-1.45 depending on the age group. For the families in the bottom tertile, the total (before-tax) income instability is 33% to 42% lower than earnings instability.

Finally, the progressive Canadian tax system further reduces instability so that the combined reduction in the bottom tertile due to government transfers and progressive tax system compared to market income instability is 30% to 44%, and 38% to 48% compared to earnings instability. For example, for the couples 35 to 39 years old in the bottom tertile, $\overline{MAD_i}$ calculated for market income is 0.19 while $\overline{MAD_i}$ calculated for after-tax income is 0.12, a 37% reduction.

In sum, the results for two-parent families confirm one of the key findings in Morissette and Ostrovsky (2005): government transfers and (to a smaller degree) the progressive tax system substantially reduce income instability in the bottom tertile as well as differences in income instability between bottom and top income tertiles.

III.2.2. Lone parents

At the outset of this study we asked: (1) how vulnerable are lone parents to earnings instability and (2) whether transfers and the tax system help low-income lone parents reduce their financial insecurity. Our main focus is on lone mothers as they represent the vast majority of lone parents.[12]

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11. For instance, for the 35-to-39 age group (bottom tertile), $\overline{MAD_i}$ dropped from 0.2 for the market income to 0.13 for the total income. Hence, the drop is [(0.2-0.13)/0.2]*100%=35%.

12. The results for lone fathers have to be considered with caution because of the small sample size.

As noted in Table 1, earnings instability in 1999 to 2004 is the highest among young lone mothers ($\overline{MAD_i}$=0.39) but declines with age by 18 log points. Table 4 shows that during the 1999-to-2004 period, it is particularly high among young lone mothers in the bottom tertile, 19 log points higher than the average. The bottom tertile/top tertile difference in instability, however, is higher among older lone mothers with the earnings instability of those aged 30 or more in the bottom tertile being more than three times higher than the earnings instability in the top tertile.

The overall smoothing effect of transfers and the progressive tax system on the earnings instability of lone mothers is evident if we compare the differences in their market income and after-tax income instability. The bottom tertile/top tertile instability ratio drops from 2.6 to 1.7 in the 25-to-29 age group, from 3.2 to 1.8 in the 35 to 39 age groups, and from 2.5 to 1.5 in the 45-to-49 age group. Notably, for all lone mothers aged 30 and older, the drop is mostly or (for those 35 and older), almost entirely due to the fall in instability in the bottom tertile.

In all age groups, *social assistance appears to be the single most important factor reducing income instability of lone mothers*. For this demographic category, SA plays a much greater role in reducing income instability than for the two-parent families. In the youngest age group, for instance, it reduces instability in the bottom tertile by 32% (from 0.44 to 0.30). As social assistance has little effect on the lone mothers in the top tertile, this also results in the largest drop in the differences between bottom and top tertiles (23%). The impact of social assistance on instability is somewhat smaller for the 45-to-49 age group although it is still larger than the impact of any other factors.

Employment insurance also lowers income instability. In all age groups, it is the second most important factor mitigating instability among lone mothers in the bottom tertile. Overall, the reduction in instability (relative to market income) due to EI and SA in the bottom tertile varies between 32% and 48%. For the youngest lone mothers in our sample, EI and SA lowers the relative instability ratio from 2.6 (market income) to 2, which accounts for about two-thirds of the overall instability abatement (2.6-1.7=0.9). For older age groups, the effect is similar.

Tax credits and especially family benefits also play important roles in reducing instability in the bottom tertile.[13] Their inclusion reduces $\overline{MAD_i}$ for the low-income lone mothers by 20% to 36%. All government transfers put together bring down the bottom tertile/top tertile ratio to the levels which for some age groups (25 to 34 and 40 to 44) are lower than the after-tax ratios.

The role of the progressive tax system has two different aspects. On the one hand, in all age groups, the instability of the after-tax income in the bottom tertile is lower than the instability of the total income although the reduction is 6% at most, and in some age groups it is close to zero. On the other hand, in some age groups the tax system has a larger effect in the top tertile, so the after-tax difference between bottom and top tertiles is actually larger for the after-tax income than for the before-tax income.

13. Because many credits and family benefits are linked to family income, high-income families do not receive them (or receive small amounts). As such, it is not surprising that it has little effect on top tertile income families.

III.2.3 Unattached individuals

Tables 6 and 7 show that there are considerable gender differences in income instability of unattached persons as well as important differences across age groups for both men and women. The earnings instability of unattached men under 35 years in the bottom tertile in our sample (measured by $\overline{MAD}_i$ in 1999 to 2004) is higher than the earnings instability of unattached women under 35 years in the bottom tertile. However, in all age groups, the *relative* (bottom/top) instability of men's earnings is lower than the *relative* instability of women's earnings, which is particularly high among women aged 45 to 49 years.

The most striking difference between the results for unattached individuals and those for lone parents is, that for the former, *employment insurance is a far more important factor reducing instability than social assistance*. Compared to the market income instability, the inclusion of EI reduces instability by 17% to 24% among unattached men and by 13% to 20% among unattached women in the bottom tertile. It also substantially reduces relative instability among both men and women in all age groups. Social assistance does not appear to play a major role among younger unattached individuals but while the reduction in instability it brings about is roughly constant among the low-income unattached men of all ages (10 %), it varies considerably with age among unattached women in the bottom tertile, 4% to 9% for all age groups except for those 45 to 49 years, where it peaks at 13%.

The combined EI and SA contribution to the reduction in relative instability (compared to market income) is between 20% and 30% for unattached men[14] and between 15% and 27% for unattached women. *This is a major component of the overall reduction in relative instability* generated by all transfers and the tax system. The overall reduction in relative instability (as we go from market income to after-tax instability) is in the range of 27% to 38% for the unattached men, and 32% to 50% for the unattached women. Hence, EI and SA accounts for 65% to 75% of the overall effect for men and about 50% of the overall effect for women.

As with lone parents, the tax system reduces income instability in both bottom and top tertiles so the impact on relative instability of the unattached individuals is small, particularly for men. It is somewhat more important for older unattached women where it reduces relative instability by about 25 percentage points.

While the tax and transfer system reduces, to a large degree, the differences in instability in market income observed between family units located in the bottom tertile and those located in the top tertile, it generally does so to a greater extent among two-parent families and lone mothers than among unattached individuals. For instance, among two-parent families with husbands aged 30 to 34, the difference in $\overline{MAD}_i$ for market income between bottom and top tertile amounted to 10 log points (i.e. 0.22-0.12=0.10) in 1999 to 2004 (Table 3). Adding taxes and all government transfers reduced that difference by 70%, i.e., to 3 log points (0.13-0.10=0.03).

14. For instance, for unattached men 35 to 39 years old, the inclusion of EI and SA reduces relative instability from 2.64 to 2.00 or by [(2.64-2)/2.64]*100%=24%.

Similar calculations for lone mothers aged 30 to 34 yield a reduction of 74% in the instability gap between bottom and top tertile (Table 4) but only 47% for unattached women aged 30 to 34 (Table 6). Hence, the stabilization role of the tax and transfer system differs across family units.

IV. Robustness checks

Our main sample includes only families with positive earnings in all six years they were in the sample. The model we used in the previous section assumes that the expected value of log earnings (or log income) is a linear function of an age polynomial. An additional set of results presented in Tables A1 to A4 shows that our main conclusions hold even if we use real earnings as the dependent variable in our model.

The main question we ask in this section is whether our results can be generalized for a broader sample which includes those with zero annual family or individual (in the case of unattached individuals) earnings. We allow families to have zero earnings for, at most, three years (not necessarily consecutive) which is not more than half of a six-year period.[15] We also leave market income unrestricted. The inclusion of zeroes precludes us from using a log earnings model; the distribution of real earnings is not normal but model (2) still produces consistent estimates as long as residuals are uncorrelated with age.

Our main conclusions regarding the recent trends in instability generally hold for the broader sample. We do not observe a widespread increase in earnings instability over the past two decades. Similar to our previous results, increases are observed among lone mothers aged 30 to 39 years and unattached women. The earnings instability of lone mothers over 39 years, however, fell in both samples. This is an important confirmation of our main results considering that the lone mothers probably have the highest fraction of families with zero annual earnings.

However, some differences are worth noting. Contrary to what we found in Table 7, family earnings instability appears to have risen for two-parent families with husbands aged 35 to 39 years and the stabilization role of EI and SA for this category (and other two-parent families) is somewhat less pronounced in the broader sample. Also, increases in earnings instability are now observed more often among lone fathers.

The broader sample model confirms that social assistance is, by far, the most important single factor reducing relative (bottom tertile/top tertile) earnings instability among lone mothers. The Canadian Child Tax Benefit program and provincially-funded family benefits also appear to play important roles; the tax system, on the other hand, while reducing instability in absolute terms often leads to higher relative instability.

For unattached individuals, the results based on the broader sample confirm that both employment insurance and social assistance account for most of the reduction in relative instability. We find a greater role of social assistance in the broad sample than in our main

15. A very small number of families reported single-digit annual earnings in some years. We reset annual earnings to zero if the amount in 2004 dollars was less than $20.00. Otherwise, we would have to keep families who reported zero earnings in some years and positive but *in fact* zero earnings in other years for a total of more than three years.

sample which is hardly surprising given that those with zero earnings are likely to depend more on social assistance than those who have positive earnings during the whole six-year period.

V. Conclusion

This study uses the Longitudinal Administrative Data base (LAD) to analyze trends in the earnings instability of lone parents and unattached individuals over the past two decades. We also examine the extent to which government transfers and the tax system reduce the differences in instability among lone parents and unattached individuals observed across different segments of the earnings distribution, and compare these results with the results for two-parent families.

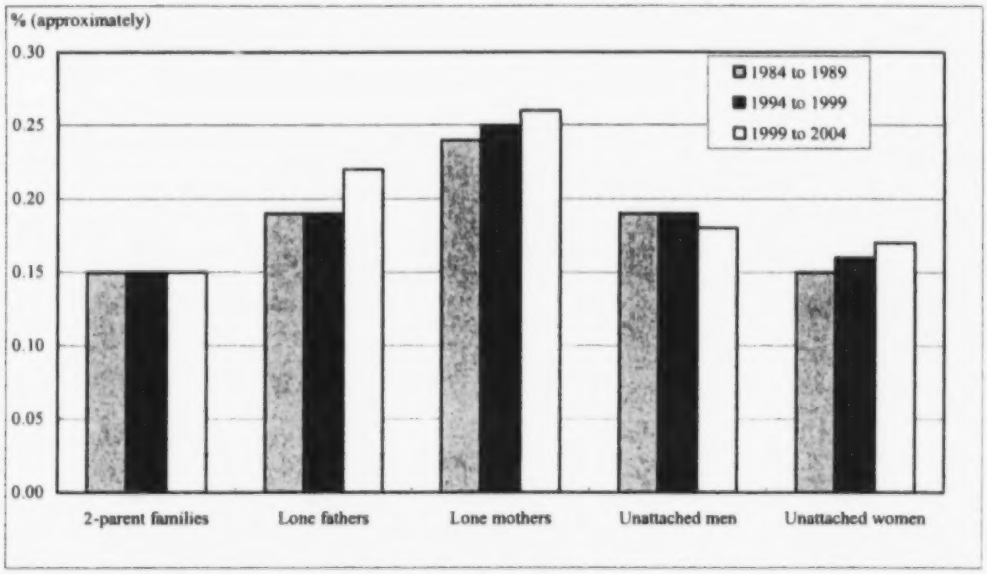
As in our previous study of two-parent families (Morissette and Ostrovsky, 2005), we do not find strong evidence of a widespread increase in earnings instability over the past two decades. For example, while the earnings instability of the younger couples in our main sample (husbands aged 25 to 34 years) has increased, the earnings instability of the couples with husbands aged 35 to 44 has not changed, and the earnings instability of older couples (45 to 49) has dropped. Similarly, the earnings instability of unattached males has dropped across all age groups while the earnings instability of unattached women rose in all age groups except for the youngest.

We find that lone mothers in the bottom tertile of the earnings distribution have the highest earnings instability among all demographic categories we considered in this study (two-parent families, lone parents and unattached individuals); in particular, the earnings instability of bottom tertile lone mothers aged 30 to 34 years is twice the earnings instability of bottom tertile two-parent families with husbands aged 30 to 34 years.

As for the role of government transfers and the tax system in smoothing employment income instability, we note that the former plays a particularly important role in reducing income instability. However, our results indicate that Employment Insurance is more important for unattached individuals, while Social Assistance is especially important for lone mothers.

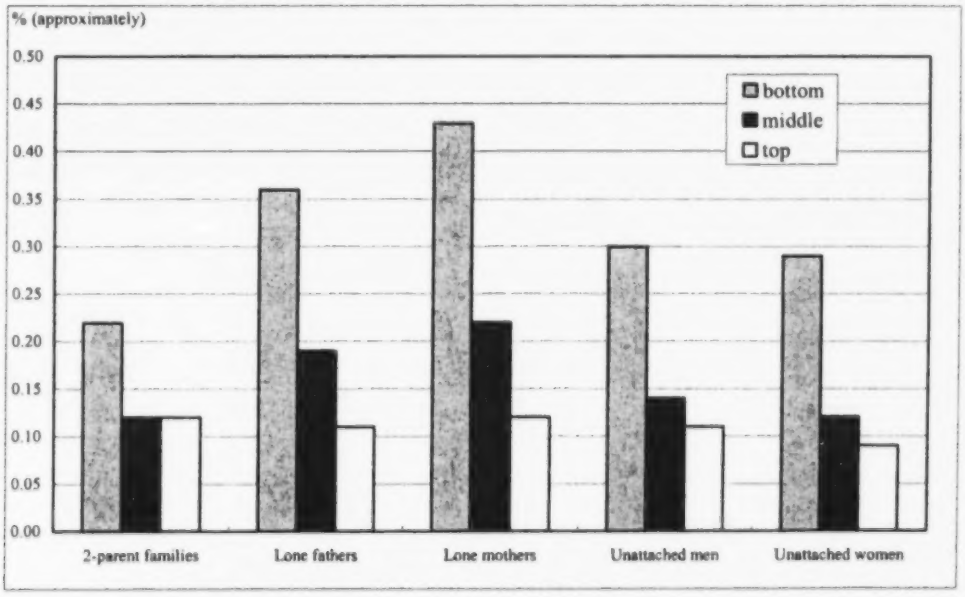
Although the tax system reduces instability in absolute terms, it does not necessarily reduce the gap between earnings instability in the bottom and top tertiles as it affects all segments of the earnings distribution.

Figure 1 Earnings instability in the 35-to-39 age group, 1984 to 1989, 1994 to 1999 and 1999 to 2004



Source: Statistics Canada, Longitudinal Administrative Data base.

Figure 2 Earnings instability in the 35-to-39 age group by employment income tertile, 1999 to 2004



Source: Statistics Canada, Longitudinal Administrative Data base.

Table 1 Earnings instability, 1984 to 1989, 1994 to 1999 and 1999 to 2004

	1984 to 1989	1994 to 1999	1999 to 2004	Percentage change
Two-parent families, husband				
25 to 29 (years)	0.17	0.19	0.19	11.8*
30 to 34	0.15	0.16	0.17	13.3*
35 to 39	0.15	0.15	0.15	0.0
40 to 44	0.15	0.15	0.15	0.0
45 to 49	0.17	0.17	0.16	-5.9
Lone parent male				
25 to 29 (years)	0.25	0.32	0.25	0.0
30 to 34	0.19	0.25	0.27	42.1*
35 to 39	0.19	0.19	0.22	15.8
40 to 44	0.18	0.18	0.19	5.6
45 to 49	0.19	0.19	0.18	-5.3
Lone parent female				
25 to 29 (years)	0.31	0.35	0.39	25.8*
30 to 34	0.26	0.29	0.32	23.1*
35 to 39	0.24	0.25	0.26	8.3*
40 to 44	0.23	0.21	0.22	-4.3
45 to 49	0.22	0.19	0.21	-4.5
Unattached male				
25 to 29 (years)	0.26	0.25	0.24	-7.7
30 to 34	0.23	0.21	0.21	-8.7
35 to 39	0.19	0.19	0.18	-5.3
40 to 44	0.18	0.18	0.17	-5.6
45 to 49	0.19	0.19	0.18	-5.3
Unattached female				
25 to 29 (years)	0.21	0.22	0.21	0.0
30 to 34	0.16	0.17	0.18	12.5*
35 to 39	0.15	0.16	0.17	13.3*
40 to 44	0.15	0.15	0.16	6.7**
45 to 49	0.15	0.17	0.17	13.3*

* Indicates that the 1999-to-2004 and 1994-to-1999 differences are positive and significant at the 1% level.

** Indicates that the 1999-to-2004 and 1994-to-1999 differences are positive and significant at the 5% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table 2 Earnings instability by employment income tertile, 1984 to 1989, 1994 to 1999 and 1999 to 2004

	1984 to 1989				1994 to 1999				1999 to 2004			
	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio
Two-parent, husband												
25 to 29 (years)	0.25	0.14	0.12	2.08	0.28	0.15	0.13	2.15	0.28	0.16	0.14	2.00*
30 to 34	0.23	0.12	0.11	2.09	0.25	0.13	0.11	2.27	0.25	0.13	0.13	1.92*
35 to 39	0.22	0.12	0.11	2.00	0.23	0.11	0.11	2.09	0.22	0.12	0.12	1.83*
40 to 44	0.22	0.13	0.11	2.00	0.23	0.11	0.10	2.30	0.21	0.11	0.11	1.91*
45 to 49	0.24	0.15	0.13	1.85	0.25	0.13	0.11	2.27	0.23	0.13	0.12	1.92*
Lone parent male												
25 to 29 (years)	0.42	0.21	0.11	3.82	0.55	0.27	0.11	5.00	0.33	0.33	0.08	4.13*
30 to 34	0.34	0.11	0.11	3.09	0.40	0.22	0.12	3.33	0.47	0.21	0.13	3.62*
35 to 39	0.37	0.12	0.09	4.11	0.31	0.14	0.10	3.10	0.36	0.19	0.11	3.27*
40 to 44	0.31	0.11	0.11	2.82	0.30	0.14	0.09	3.33	0.30	0.14	0.12	2.50*
45 to 49	0.31	0.12	0.13	2.38	0.30	0.17	0.11	2.73	0.28	0.14	0.12	2.33*
Lone parent female												
25 to 29 (years)	0.50	0.30	0.13	3.85	0.52	0.36	0.17	3.06	0.58	0.38	0.21	2.76*
30 to 34	0.46	0.19	0.11	4.18	0.48	0.24	0.13	3.69	0.51	0.29	0.14	3.64*
35 to 39	0.41	0.17	0.12	3.42	0.43	0.18	0.10	4.30	0.43	0.22	0.12	3.58*
40 to 44	0.35	0.17	0.13	2.69	0.37	0.14	0.10	3.70	0.38	0.17	0.11	3.45*
45 to 49	0.32	0.18	0.16	2.00	0.31	0.15	0.11	2.82	0.35	0.16	0.12	2.92*
Unattached male												
25 to 29 (years)	0.43	0.21	0.12	3.58	0.41	0.19	0.14	2.93	0.37	0.20	0.15	2.47*
30 to 34	0.40	0.17	0.09	4.44	0.36	0.16	0.10	3.60	0.34	0.16	0.12	2.83*
35 to 39	0.34	0.14	0.09	3.78	0.33	0.14	0.09	3.67	0.30	0.14	0.11	2.73*
40 to 44	0.33	0.14	0.08	4.13	0.32	0.13	0.09	3.56	0.28	0.14	0.10	2.80*
45 to 49	0.33	0.15	0.08	4.13	0.34	0.14	0.10	3.40	0.29	0.15	0.11	2.64*
Unattached female												
25 to 29 (years)	0.36	0.15	0.10	3.60	0.35	0.19	0.12	2.92	0.32	0.18	0.12	2.67*
30 to 34	0.30	0.11	0.08	3.75	0.29	0.12	0.09	3.22	0.30	0.14	0.10	3.00*
35 to 39	0.28	0.10	0.07	4.00	0.29	0.10	0.08	3.63	0.29	0.12	0.09	3.22*
40 to 44	0.27	0.10	0.07	3.86	0.29	0.10	0.07	4.14	0.28	0.10	0.09	3.11*
45 to 49	0.29	0.10	0.06	4.83	0.31	0.13	0.08	3.88	0.30	0.13	0.08	3.75*

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table 3 Income instability and the tax and transfer system, two-parent families, 1994 to 1999 and 1999 to 2004

	1994 to 1999				1999 to 2004			
	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio
25 to 29 years old								
earnings	0.27	0.15	0.12	2.25	0.27	0.16	0.14	1.93*
market income	0.25	0.14	0.12	2.08	0.25	0.15	0.14	1.79*
market income + employment insurance	0.20	0.12	0.11	1.82	0.21	0.13	0.11	1.91*
market income + employment insurance + social assistance	0.18	0.12	0.11	1.64	0.19	0.13	0.11	1.73*
market income + employment insurance + social assistance + tax credit	0.17	0.12	0.11	1.55	0.18	0.12	0.11	1.64*
market income + employment insurance + social assistance + family benefits	0.16	0.12	0.11	1.45	0.17	0.12	0.11	1.55*
total income	0.15	0.11	0.11	1.36	0.16	0.12	0.11	1.45*
after-tax income	0.13	0.10	0.10	1.30	0.14	0.11	0.10	1.40*
adjusted income	0.14	0.12	0.12	1.17	0.15	0.13	0.13	1.15*
30 to 34 years old								
earnings	0.24	0.13	0.11	2.18	0.24	0.13	0.12	2.00*
market income	0.23	0.12	0.11	2.09	0.22	0.13	0.12	1.83*
market income + employment insurance	0.18	0.11	0.10	1.80	0.19	0.11	0.11	1.73*
market income + employment insurance + social assistance	0.16	0.11	0.10	1.60	0.17	0.11	0.11	1.55*
market income + employment insurance + social assistance + tax credit	0.16	0.10	0.10	1.60	0.17	0.11	0.11	1.55*
market income + employment insurance + social assistance + family benefits	0.14	0.10	0.10	1.40	0.15	0.10	0.11	1.36*
total income	0.14	0.10	0.10	1.40	0.14	0.10	0.11	1.27*
after-tax income	0.12	0.09	0.09	1.33	0.13	0.10	0.10	1.30*
adjusted income	0.13	0.10	0.10	1.30	0.13	0.11	0.11	1.18*
35 to 39 years old								
earnings	0.23	0.11	0.10	2.30	0.22	0.11	0.11	2.00*
market income	0.21	0.11	0.10	2.10	0.20	0.11	0.11	1.82*
market income + employment insurance	0.17	0.10	0.09	1.89	0.17	0.10	0.10	1.70*
market income + employment insurance + social assistance	0.16	0.10	0.09	1.78	0.16	0.10	0.10	1.60*
market income + employment insurance + social assistance + tax credit	0.15	0.10	0.09	1.67	0.16	0.10	0.10	1.60*
market income + employment insurance + social assistance + family benefits	0.14	0.09	0.09	1.56	0.14	0.10	0.10	1.40*
total income	0.13	0.09	0.09	1.44	0.13	0.10	0.10	1.30*
after-tax income	0.12	0.09	0.09	1.33	0.12	0.09	0.10	1.20*
adjusted income	0.12	0.09	0.09	1.33	0.12	0.10	0.10	1.20*
40 to 44 years old								
earnings	0.22	0.11	0.10	2.20	0.21	0.11	0.11	1.91*
market income	0.20	0.11	0.10	2.00	0.19	0.11	0.11	1.73*
market income + employment insurance	0.17	0.10	0.09	1.89	0.17	0.10	0.10	1.70*
market income + employment insurance + social assistance	0.16	0.10	0.09	1.78	0.16	0.10	0.10	1.60*
market income + employment insurance + social assistance + tax credit	0.16	0.10	0.09	1.78	0.16	0.10	0.10	1.60*
market income + employment insurance + social assistance + family benefits	0.15	0.10	0.09	1.67	0.14	0.10	0.10	1.40*
total income	0.14	0.10	0.09	1.56	0.14	0.10	0.10	1.40*
after-tax income	0.13	0.09	0.09	1.44	0.13	0.09	0.10	1.30*
adjusted income	0.13	0.09	0.09	1.44	0.12	0.09	0.10	1.20*
45 to 49 years old								
earnings	0.24	0.13	0.11	2.18	0.23	0.12	0.11	2.09*
market income	0.21	0.12	0.10	2.10	0.20	0.12	0.11	1.82*
market income + employment insurance	0.18	0.11	0.10	1.80	0.18	0.11	0.11	1.64*
market income + employment insurance + social assistance	0.17	0.11	0.10	1.70	0.17	0.11	0.11	1.55*
market income + employment insurance + social assistance + tax credit	0.17	0.11	0.10	1.70	0.17	0.11	0.11	1.55*
market income + employment insurance + social assistance + family benefits	0.16	0.11	0.10	1.60	0.16	0.11	0.11	1.45*
total income	0.15	0.11	0.10	1.50	0.15	0.11	0.11	1.36*
after-tax income	0.14	0.11	0.10	1.40	0.14	0.11	0.11	1.27*
adjusted income	0.13	0.10	0.09	1.44	0.13	0.10	0.10	1.30*

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table 4 Income instability and the tax and transfer system, lone mothers, 1994 to 1999 and 1999 to 2004

	1994 to 1999				1999 to 2004			
	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio
25 to 29 years old								
earnings	0.52	0.36	0.17	3.06	0.58	0.38	0.21	2.76*
market income	0.47	0.31	0.17	2.76	0.52	0.34	0.20	2.60*
market income + employment insurance	0.41	0.24	0.14	2.93	0.44	0.27	0.17	2.59*
market income + employment insurance + social assistance	0.20	0.18	0.12	1.67	0.30	0.23	0.15	2.00*
market income + employment insurance + social assistance + tax credit	0.19	0.17	0.12	1.58	0.27	0.21	0.14	1.93*
market income + employment insurance + social assistance + family benefits	0.16	0.15	0.11	1.45	0.20	0.17	0.13	1.54*
total income	0.16	0.15	0.11	1.45	0.20	0.17	0.13	1.54*
after-tax income	0.16	0.13	0.10	1.60	0.19	0.16	0.11	1.73*
adjusted income	0.16	0.13	0.10	1.60	0.19	0.16	0.11	1.73*
30 to 34 years old								
earnings	0.48	0.24	0.13	3.69	0.51	0.29	0.14	3.64*
market income	0.41	0.21	0.12	3.42	0.45	0.26	0.14	3.21*
market income + employment insurance	0.35	0.17	0.11	3.18	0.38	0.21	0.12	3.17*
market income + employment insurance + social assistance	0.21	0.14	0.10	2.10	0.26	0.18	0.12	2.17*
market income + employment insurance + social assistance + tax credit	0.20	0.14	0.10	2.00	0.24	0.17	0.11	2.18*
market income + employment insurance + social assistance + family benefits	0.17	0.12	0.10	1.70	0.18	0.15	0.11	1.64*
total income	0.17	0.12	0.09	1.89	0.17	0.14	0.10	1.70*
after-tax income	0.16	0.11	0.08	2.00	0.17	0.13	0.09	1.89*
adjusted income	0.16	0.11	0.08	2.00	0.17	0.13	0.09	1.89*
35 to 39 years old								
earnings	0.43	0.18	0.10	4.30	0.43	0.22	0.12	3.58*
market income	0.36	0.17	0.10	3.60	0.38	0.20	0.12	3.17*
market income + employment insurance	0.30	0.14	0.10	3.00	0.32	0.18	0.11	2.91*
market income + employment insurance + social assistance	0.20	0.13	0.10	2.00	0.25	0.16	0.11	2.27*
market income + employment insurance + social assistance + tax credit	0.19	0.12	0.09	2.11	0.23	0.16	0.11	2.09*
market income + employment insurance + social assistance + family benefits	0.17	0.11	0.09	1.89	0.18	0.13	0.10	1.80*
total income	0.16	0.11	0.09	1.78	0.17	0.13	0.10	1.70*
after-tax income	0.15	0.10	0.08	1.88	0.16	0.12	0.09	1.78*
adjusted income	0.15	0.10	0.08	1.88	0.16	0.12	0.09	1.78*
40 to 44 years								
earnings	0.37	0.14	0.10	3.70	0.38	0.17	0.11	3.45*
market income	0.31	0.13	0.10	3.10	0.33	0.16	0.11	3.00*
market income + employment insurance	0.25	0.12	0.10	2.50	0.29	0.15	0.11	2.64*
market income + employment insurance + social assistance	0.18	0.11	0.10	1.80	0.22	0.14	0.11	2.00*
market income + employment insurance + social assistance + tax credit	0.17	0.11	0.09	1.89	0.21	0.14	0.11	1.91*
market income + employment insurance + social assistance + family benefits	0.16	0.10	0.09	1.78	0.17	0.12	0.11	1.55*
total income	0.15	0.10	0.09	1.67	0.16	0.12	0.11	1.45*
after-tax income	0.14	0.09	0.09	1.56	0.16	0.11	0.10	1.60*
adjusted income	0.14	0.09	0.08	1.75	0.15	0.11	0.10	1.50*
45 to 49 years old								
earnings	0.31	0.15	0.11	2.82	0.35	0.16	0.11	3.18*
market income	0.26	0.13	0.11	2.36	0.30	0.15	0.12	2.50*
market income + employment insurance	0.22	0.13	0.11	2.00	0.26	0.15	0.11	2.36*
market income + employment insurance + social assistance	0.18	0.13	0.11	1.64	0.21	0.14	0.11	1.91*
market income + employment insurance + social assistance + tax credit	0.17	0.12	0.11	1.55	0.20	0.14	0.11	1.82*
market income + employment insurance + social assistance + family benefits	0.16	0.12	0.11	1.45	0.17	0.13	0.11	1.55*
total income	0.15	0.12	0.11	1.36	0.17	0.13	0.11	1.55**
after-tax income	0.14	0.11	0.10	1.40	0.16	0.13	0.11	1.45**
adjusted income	0.14	0.10	0.09	1.56	0.15	0.12	0.10	1.50*

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

** Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 5% level.

Table 5 Income instability and the tax and transfer system, lone fathers, 1994 to 1999 and 1999 to 2004

	1994 to 1999				1999 to 2004			
	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio
25 to 29 years old								
earnings	0.55	0.27	0.11	5.00	0.33	0.33	0.08	4.13*
market income	0.52	0.27	0.11	4.73	0.33	0.30	0.08	4.13*
market income + employment insurance	0.41	0.19	0.10	4.10	0.28	0.27	0.08	3.50*
market income + employment insurance + social assistance	0.22	0.18	0.10	2.20	0.22	0.26	0.08	2.75*
market income + employment insurance + social assistance + tax credit	0.21	0.18	0.09	2.33	0.21	0.24	0.07	3.00*
market income + employment insurance + social assistance + family benefits	0.19	0.17	0.09	2.11	0.18	0.20	0.07	2.57*
total income	0.19	0.17	0.09	2.11	0.18	0.19	0.07	2.57*
after-tax income	0.17	0.14	0.07	2.43	0.17	0.16	0.06	2.83*
adjusted income	0.17	0.14	0.08	2.13	0.17	0.16	0.06	2.83*
30 to 34 years old								
earnings	0.40	0.22	0.12	3.33	0.47	0.21	0.13	3.62*
market income	0.39	0.17	0.12	3.25	0.46	0.19	0.13	3.54*
market income + employment insurance	0.33	0.13	0.09	3.67	0.40	0.15	0.11	3.64*
market income + employment insurance + social assistance	0.23	0.13	0.09	2.56	0.30	0.15	0.11	2.73*
market income + employment insurance + social assistance + tax credit	0.22	0.12	0.09	2.44	0.27	0.14	0.11	2.45*
market income + employment insurance + social assistance + family benefits	0.19	0.12	0.09	2.11	0.22	0.13	0.11	2.00*
total income	0.18	0.11	0.09	2.00	0.21	0.12	0.11	1.91*
after-tax income	0.17	0.10	0.07	2.43	0.20	0.11	0.10	2.00*
adjusted income	0.17	0.10	0.07	2.43	0.20	0.11	0.10	2.00*
35 to 39 years old								
earnings	0.31	0.14	0.10	3.10	0.36	0.19	0.11	3.27*
market income	0.29	0.14	0.10	2.90	0.32	0.17	0.12	2.67*
market income + employment insurance	0.24	0.13	0.09	2.67	0.26	0.14	0.11	2.36*
market income + employment insurance + social assistance	0.20	0.11	0.09	2.22	0.22	0.14	0.11	2.00*
market income + employment insurance + social assistance + tax credit	0.19	0.11	0.09	2.11	0.20	0.13	0.11	1.82*
market income + employment insurance + social assistance + family benefits	0.16	0.11	0.09	1.78	0.17	0.12	0.11	1.55*
total income	0.15	0.10	0.09	1.67	0.15	0.12	0.11	1.36*
after-tax income	0.13	0.09	0.08	1.63	0.14	0.11	0.10	1.40*
adjusted income	0.13	0.10	0.08	1.63	0.14	0.10	0.10	1.40*
40 to 44 years old								
earnings	0.30	0.14	0.09	3.33	0.30	0.14	0.12	2.50*
market income	0.27	0.14	0.09	3.00	0.29	0.14	0.12	2.42*
market income + employment insurance	0.21	0.12	0.09	2.33	0.24	0.12	0.11	2.18*
market income + employment insurance + social assistance	0.19	0.12	0.09	2.11	0.22	0.12	0.11	2.00*
market income + employment insurance + social assistance + tax credit	0.18	0.12	0.09	2.00	0.21	0.12	0.11	1.91*
market income + employment insurance + social assistance + family benefits	0.17	0.11	0.09	1.89	0.18	0.12	0.11	1.64*
total income	0.16	0.11	0.08	2.00	0.15	0.11	0.11	1.36*
after-tax income	0.14	0.10	0.08	1.75	0.14	0.11	0.10	1.40*
adjusted income	0.14	0.10	0.08	1.75	0.14	0.10	0.10	1.40*
45 to 49 years old								
earnings	0.30	0.15	0.10	3.00	0.28	0.14	0.12	2.33*
market income	0.24	0.12	0.10	2.40	0.24	0.14	0.12	2.00*
market income + employment insurance	0.20	0.12	0.10	2.00	0.20	0.13	0.11	1.82*
market income + employment insurance + social assistance	0.17	0.12	0.10	1.70	0.18	0.13	0.11	1.64*
market income + employment insurance + social assistance + tax credit	0.17	0.11	0.10	1.70	0.17	0.13	0.11	1.55*
market income + employment insurance + social assistance + family benefits	0.16	0.11	0.10	1.60	0.16	0.12	0.11	1.45*
total income	0.15	0.11	0.09	1.67	0.14	0.12	0.11	1.27*
after-tax income	0.14	0.11	0.10	1.40	0.13	0.12	0.11	1.18*
adjusted income	0.13	0.10	0.09	1.44	0.13	0.11	0.10	1.30*

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table 6 Income instability and the tax and transfer system, unattached women, 1994 to 1999 and 1999 to 2004

	1994 to 1999				1999 to 2004			
	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio
25 to 29 years old								
earnings	0.35	0.19	0.12	2.92	0.32	0.18	0.12	2.67*
market income	0.33	0.17	0.12	2.75	0.29	0.16	0.12	2.42*
market income + employment insurance	0.27	0.15	0.11	2.45	0.25	0.15	0.12	2.08*
market income + employment insurance + social assistance	0.24	0.15	0.11	2.18	0.24	0.15	0.12	2.00*
market income + employment insurance + social assistance + tax credit	0.23	0.14	0.11	2.09	0.23	0.15	0.12	1.92*
total income	0.23	0.14	0.11	2.09	0.22	0.15	0.12	1.83*
after-tax income	0.20	0.13	0.10	2.00	0.20	0.13	0.11	1.82*
30 to 34 years old								
earnings	0.29	0.12	0.09	3.22	0.29	0.14	0.10	2.90*
market income	0.27	0.12	0.09	3.00	0.27	0.13	0.10	2.70*
market income + employment insurance	0.21	0.10	0.09	2.33	0.23	0.12	0.10	2.30*
market income + employment insurance + social assistance	0.19	0.10	0.09	2.11	0.21	0.12	0.10	2.10*
market income + employment insurance + social assistance + tax credit	0.19	0.10	0.09	2.11	0.20	0.12	0.10	2.00*
total income	0.18	0.10	0.09	2.00	0.19	0.12	0.10	1.90*
after-tax income	0.16	0.09	0.08	2.00	0.17	0.11	0.09	1.89*
35 to 39 years old								
earnings	0.29	0.10	0.08	3.63	0.29	0.12	0.09	3.22*
market income	0.26	0.09	0.08	3.25	0.27	0.11	0.09	3.00*
market income + employment insurance	0.21	0.09	0.08	2.63	0.23	0.10	0.09	2.56*
market income + employment insurance + social assistance	0.19	0.08	0.08	2.38	0.21	0.10	0.09	2.33*
market income + employment insurance + social assistance + tax credit	0.18	0.08	0.08	2.25	0.19	0.10	0.09	2.11*
total income	0.17	0.08	0.08	2.13	0.18	0.10	0.09	2.00*
after-tax income	0.15	0.08	0.07	2.14	0.17	0.09	0.08	2.13*
40 to 44 years old								
earnings	0.29	0.10	0.07	4.14	0.28	0.10	0.09	3.11*
market income	0.27	0.09	0.07	3.86	0.25	0.10	0.09	2.78*
market income + employment insurance	0.20	0.08	0.07	2.86	0.20	0.09	0.08	2.50*
market income + employment insurance + social assistance	0.19	0.08	0.07	2.71	0.19	0.09	0.08	2.38*
market income + employment insurance + social assistance + tax credit	0.18	0.08	0.07	2.57	0.18	0.09	0.08	2.25*
total income	0.17	0.08	0.06	2.83	0.17	0.09	0.08	2.13*
after-tax income	0.16	0.07	0.06	2.67	0.15	0.08	0.08	1.88*
45 to 49 years old								
earnings	0.30	0.13	0.08	3.75	0.30	0.13	0.08	3.75*
market income	0.26	0.10	0.07	3.71	0.26	0.11	0.08	3.25*
market income + employment insurance	0.21	0.09	0.07	3.00	0.22	0.10	0.08	2.75*
market income + employment insurance + social assistance	0.18	0.09	0.07	2.57	0.19	0.10	0.08	2.38*
market income + employment insurance + social assistance + tax credit	0.17	0.09	0.07	2.43	0.18	0.09	0.08	2.25*
total income	0.16	0.09	0.07	2.29	0.17	0.09	0.08	2.13*
after-tax income	0.15	0.08	0.06	2.50	0.15	0.09	0.08	1.88*

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table 7 Income instability and the tax and transfer system, unattached men, 1994 to 1999 and 1999 to 2004

	1994 to 1999				1999 to 2004			
	Bottom	Middle	Top	Bottom/ top ratio	Bottom	Middle	Top	Bottom/ top ratio
25 to 29 years old								
earnings	0.41	0.19	0.14	2.93	0.37	0.20	0.15	2.47*
market income	0.39	0.18	0.14	2.79	0.35	0.19	0.15	2.33*
market income + employment insurance	0.30	0.15	0.13	2.31	0.29	0.17	0.14	2.07*
market income + employment insurance + social assistance	0.26	0.15	0.13	2.00	0.26	0.17	0.14	1.86*
market income + employment insurance + social assistance + tax credit	0.25	0.15	0.13	1.92	0.25	0.16	0.14	1.79*
total income	0.24	0.15	0.13	1.85	0.24	0.16	0.14	1.71*
after-tax income	0.22	0.13	0.11	2.00	0.22	0.14	0.13	1.69*
30 to 34 years old								
earnings	0.35	0.15	0.10	3.50	0.34	0.16	0.12	2.83*
market income	0.33	0.15	0.10	3.30	0.32	0.15	0.12	2.67*
market income + employment insurance	0.25	0.12	0.10	2.50	0.26	0.13	0.11	2.36*
market income + employment insurance + social assistance	0.21	0.12	0.10	2.10	0.23	0.13	0.11	2.09*
market income + employment insurance + social assistance + tax credit	0.21	0.12	0.10	2.10	0.22	0.13	0.11	2.00*
total income	0.20	0.11	0.10	2.00	0.21	0.13	0.11	1.91*
after-tax income	0.17	0.10	0.09	1.89	0.19	0.12	0.10	1.90*
35 to 39 years old								
earnings	0.33	0.14	0.09	3.67	0.30	0.14	0.11	2.73*
market income	0.31	0.13	0.09	3.44	0.29	0.13	0.11	2.64*
market income + employment insurance	0.23	0.11	0.09	2.56	0.22	0.12	0.10	2.20*
market income + employment insurance + social assistance	0.20	0.11	0.09	2.22	0.20	0.12	0.10	2.00*
market income + employment insurance + social assistance + tax credit	0.19	0.11	0.09	2.11	0.19	0.11	0.10	1.90*
total income	0.19	0.10	0.09	2.11	0.18	0.11	0.10	1.80*
after-tax income	0.17	0.09	0.08	2.13	0.16	0.10	0.09	1.78*
40 to 44 years old								
earnings	0.32	0.13	0.09	3.56	0.28	0.14	0.10	2.80*
market income	0.30	0.13	0.09	3.33	0.27	0.13	0.10	2.70*
market income + employment insurance	0.22	0.11	0.09	2.44	0.21	0.11	0.10	2.10*
market income + employment insurance + social assistance	0.19	0.11	0.09	2.11	0.19	0.11	0.10	1.90*
market income + employment insurance + social assistance + tax credit	0.18	0.10	0.09	2.00	0.18	0.11	0.10	1.80*
total income	0.18	0.10	0.09	2.00	0.17	0.11	0.10	1.70*
after-tax income	0.16	0.09	0.08	2.00	0.15	0.10	0.09	1.67*
45 to 49 years old								
earnings	0.33	0.14	0.10	3.30	0.29	0.15	0.11	2.64*
market income	0.28	0.12	0.09	3.11	0.25	0.13	0.10	2.50*
market income + employment insurance	0.22	0.10	0.09	2.44	0.20	0.11	0.10	2.00*
market income + employment insurance + social assistance	0.19	0.10	0.09	2.11	0.18	0.11	0.10	1.80*
market income + employment insurance + social assistance + tax credit	0.19	0.10	0.09	2.11	0.17	0.11	0.10	1.70*
total income	0.18	0.10	0.09	2.00	0.16	0.10	0.10	1.60*
after-tax income	0.16	0.09	0.08	2.00	0.15	0.10	0.09	1.67*

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table A.1 Earnings instability, 1984 to 1989, 1994 to 1999 and 1999 to 2004

	1984 to 1989	1994 to 1999	1999 to 2004	Percentage change	1984 to 1989			1994 to 1999			1999 to 2004		
					Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
Two-parent husband													
25 to 29 (years)	0.15	0.17	0.18	20%*	0.21	0.13	0.12	0.23	0.14	0.13	0.23***	0.15	0.13
30 to 34	0.14	0.15	0.18	29%**	0.19	0.11	0.10	0.21	0.12	0.11	0.24***	0.12	0.12
35 to 39	0.14	0.14	0.16	14%	0.19	0.11	0.10	0.20	0.11	0.11	0.22***	0.11	0.11
40 to 44	0.14	0.14	0.14	0%	0.19	0.12	0.11	0.20	0.11	0.10	0.18***	0.10	0.11
45 to 49	0.16	0.15	0.15	-6%	0.21	0.14	0.12	0.21	0.12	0.11	0.20***	0.12	0.11
Lone parent male													
25 to 29 (years)	0.20	0.24	0.20	0%	0.30	0.19	0.10	0.35	0.24	0.11	0.29***	0.23	0.08
30 to 34	0.16	0.19	0.24	50%*	0.28	0.09	0.10	0.31	0.15	0.10	0.36***	0.16	0.13
35 to 39	0.17	0.16	0.18	6%	0.31	0.11	0.09	0.25	0.12	0.10	0.27***	0.15	0.11
40 to 44	0.15	0.16	0.17	13%	0.24	0.10	0.11	0.24	0.13	0.09	0.24***	0.13	0.12
45 to 49	0.17	0.15	0.16	-6%	0.25	0.12	0.13	0.21	0.13	0.10	0.21***	0.13	0.12
Lone parent female													
25 to 29 (years)	0.25	0.28	0.29	16%*	0.39	0.23	0.12	0.39	0.26	0.14	0.42***	0.27	0.16
30 to 34	0.21	0.22	0.24	14%*	0.36	0.16	0.10	0.36	0.18	0.11	0.37***	0.21	0.12
35 to 39	0.19	0.20	0.21	11%*	0.32	0.14	0.11	0.33	0.15	0.10	0.33***	0.17	0.11
40 to 44	0.20	0.17	0.20	0%	0.29	0.16	0.13	0.28	0.12	0.10	0.31***	0.14	0.11
45 to 49	0.21	0.17	0.19	-10%	0.28	0.17	0.15	0.25	0.13	0.11	0.28***	0.15	0.11
Unattached male													
25 to 29 (years)	0.21	0.23	0.22	5%	0.34	0.17	0.11	0.32	0.16	0.14	0.29***	0.16	0.14
30 to 34	0.18	0.17	0.18	0%	0.31	0.14	0.09	0.27	0.13	0.10	0.26***	0.13	0.12
35 to 39	0.16	0.16	0.16	0%	0.28	0.11	0.09	0.25	0.11	0.09	0.24***	0.12	0.10
40 to 44	0.15	0.15	0.14	-7%	0.26	0.12	0.08	0.25	0.11	0.09	0.22***	0.11	0.09
45 to 49	0.15	0.15	0.15	0%	0.26	0.12	0.08	0.25	0.11	0.09	0.22***	0.12	0.09
Unattached female													
25 to 29 (years)	0.17	0.19	0.18	6%*	0.29	0.12	0.09	0.28	0.15	0.11	0.26***	0.14	0.11
30 to 34	0.14	0.15	0.16	14%*	0.23	0.09	0.07	0.23	0.10	0.09	0.24***	0.12	0.09
35 to 39	0.12	0.13	0.14	17%*	0.21	0.09	0.07	0.22	0.08	0.08	0.23***	0.10	0.09
40 to 44	0.12	0.12	0.14	17%*	0.21	0.08	0.06	0.22	0.08	0.06	0.21***	0.09	0.08
45 to 49	0.12	0.13	0.13	8%*	0.22	0.08	0.06	0.23	0.09	0.07	0.22***	0.10	0.08

* Indicates that the 1999-to-2004 and 1994-to-1999 differences are positive and significant at the 1% level.

** Indicates that the 1999-to-2004 and 1994-to-1999 differences are positive and significant at the 5% level.

*** Indicates that the bottom-up differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table A.2 Income instability and the tax and transfer system, two-parent families, 1994 to 1999 and 1999 to 2004

	1994 to 1999			1999 to 2004		
	Bottom	Middle	Top	Bottom	Middle	Top
25 to 29 years old						
earnings	0.23	0.14	0.12	0.23*	0.14	0.13
market income	0.22	0.13	0.12	0.22*	0.14	0.13
market income + employment insurance	0.18	0.11	0.11	0.18*	0.12	0.11
market income + employment insurance + social assistance	0.17	0.11	0.11	0.17*	0.12	0.11
market income + employment insurance + social assistance + tax credit	0.16	0.11	0.11	0.17*	0.12	0.11
market income + employment insurance + social assistance + family benefits	0.15	0.11	0.11	0.15*	0.11	0.11
total income	0.14	0.11	0.11	0.15*	0.11	0.11
after-tax income	0.13	0.10	0.10	0.13*	0.10	0.10
adjusted income	0.13	0.12	0.11	0.14*	0.12	0.12
30 to 34 years old						
earnings	0.20	0.12	0.11	0.24*	0.12	0.12
market income	0.20	0.12	0.11	0.23*	0.12	0.12
market income + employment insurance	0.16	0.10	0.10	0.16*	0.10	0.11
market income + employment insurance + social assistance	0.15	0.10	0.10	0.16*	0.10	0.11
market income + employment insurance + social assistance + tax credit	0.15	0.10	0.10	0.15*	0.10	0.11
market income + employment insurance + social assistance + family benefits	0.14	0.10	0.10	0.14*	0.10	0.11
total income	0.13	0.10	0.10	0.13*	0.10	0.11
after-tax income	0.12	0.09	0.09	0.12*	0.09	0.10
adjusted income	0.12	0.10	0.10	0.13*	0.10	0.11
35 to 39 years old						
earnings	0.19	0.10	0.10	0.21*	0.11	0.11
market income	0.19	0.10	0.10	0.18*	0.11	0.11
market income + employment insurance	0.16	0.09	0.10	0.16*	0.10	0.10
market income + employment insurance + social assistance	0.15	0.09	0.10	0.15*	0.10	0.10
market income + employment insurance + social assistance + tax credit	0.15	0.09	0.10	0.15*	0.10	0.10
market income + employment insurance + social assistance + family benefits	0.14	0.09	0.10	0.13*	0.09	0.10
total income	0.13	0.09	0.10	0.13*	0.09	0.10
after-tax income	0.12	0.08	0.09	0.11*	0.09	0.10
adjusted income	0.12	0.09	0.09	0.12*	0.09	0.10
40 to 44 years old						
earnings	0.19	0.10	0.10	0.18*	0.10	0.11
market income	0.18	0.10	0.10	0.17*	0.10	0.11
market income + employment insurance	0.16	0.10	0.10	0.15*	0.10	0.11
market income + employment insurance + social assistance	0.15	0.10	0.10	0.15*	0.10	0.11
market income + employment insurance + social assistance + tax credit	0.15	0.10	0.10	0.15*	0.10	0.11
market income + employment insurance + social assistance + family benefits	0.14	0.09	0.10	0.14*	0.10	0.10
total income	0.13	0.09	0.10	0.13*	0.09	0.10
after-tax income	0.12	0.09	0.09	0.12*	0.09	0.10
adjusted income	0.12	0.09	0.09	0.12*	0.09	0.10
45 to 49 years old						
earnings	0.21	0.12	0.11	0.19*	0.12	0.11
market income	0.19	0.11	0.11	0.18*	0.11	0.11
market income + employment insurance	0.17	0.11	0.10	0.16*	0.11	0.11
market income + employment insurance + social assistance	0.16	0.11	0.10	0.16*	0.11	0.11
market income + employment insurance + social assistance + tax credit	0.16	0.11	0.10	0.16*	0.11	0.11
market income + employment insurance + social assistance + family benefits	0.16	0.11	0.10	0.15*	0.11	0.11
total income	0.15	0.11	0.10	0.14*	0.11	0.11
after-tax income	0.14	0.11	0.10	0.14*	0.10	0.11

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table A.3 Income instability and the tax and transfer system, lone parents, 1994 to 1999 and 1999 to 2004

	Women						Men					
	1994 to 1999			1999 to 2004			1994 to 1999			1999 to 2004		
	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
25 to 29 years old												
earnings	0.39	0.26	0.14	0.42*	0.27	0.16	0.35	0.24	0.11	0.29*	0.23	0.08
market income	0.36	0.24	0.14	0.39*	0.26	0.16	0.34	0.24	0.11	0.28*	0.22	0.08
market income + employment insurance	0.32	0.19	0.12	0.33*	0.21	0.14	0.28	0.17	0.10	0.25*	0.20	0.08
market income + employment insurance + social assistance	0.19	0.16	0.11	0.25*	0.19	0.13	0.20	0.16	0.10	0.21*	0.19	0.08
market income + employment insurance + social assistance + tax credit	0.18	0.15	0.11	0.23*	0.18	0.13	0.20	0.16	0.09	0.2*	0.18	0.08
market income + employment insurance + social assistance + family benefits	0.16	0.14	0.10	0.19*	0.16	0.12	0.18	0.15	0.09	0.17*	0.17	0.07
total income	0.15	0.14	0.10	0.18*	0.15	0.12	0.18	0.15	0.09	0.17*	0.16	0.07
after-tax income	0.15	0.12	0.09	0.18*	0.14	0.11	0.17	0.13	0.07	0.16*	0.14	0.06
adjusted income	0.15	0.12	0.09	0.18*	0.14	0.11	0.16	0.12	0.07	0.16*	0.14	0.06
30 to 34 years old												
earnings	0.36	0.18	0.11	0.37*	0.21	0.12	0.31	0.15	0.10	0.36*	0.16	0.13
market income	0.33	0.17	0.11	0.35*	0.20	0.12	0.30	0.14	0.10	0.36*	0.16	0.13
market income + employment insurance	0.28	0.15	0.10	0.29*	0.17	0.11	0.25	0.11	0.10	0.3*	0.14	0.12
market income + employment insurance + social assistance	0.19	0.13	0.10	0.23*	0.16	0.11	0.20	0.11	0.09	0.24*	0.13	0.12
market income + employment insurance + social assistance + tax credit	0.18	0.12	0.10	0.21*	0.15	0.11	0.19	0.11	0.09	0.23*	0.13	0.12
market income + employment insurance + social assistance + family benefits	0.16	0.11	0.09	0.17*	0.13	0.10	0.18	0.10	0.09	0.2*	0.12	0.12
total income	0.16	0.11	0.09	0.16*	0.13	0.10	0.17	0.10	0.09	0.19*	0.12	0.11
after-tax income	0.15	0.10	0.08	0.16*	0.12	0.09	0.15	0.09	0.08	0.18*	0.10	0.10
adjusted income	0.15	0.10	0.08	0.16*	0.12	0.09	0.15	0.09	0.08	0.18*	0.10	0.11
35 to 39 years old												
earnings	0.33	0.15	0.10	0.33*	0.17	0.11	0.25	0.12	0.10	0.27*	0.15	0.11
market income	0.29	0.14	0.10	0.31*	0.16	0.11	0.24	0.12	0.10	0.25*	0.15	0.11
market income + employment insurance	0.25	0.13	0.10	0.26*	0.15	0.11	0.21	0.11	0.09	0.2*	0.13	0.11
market income + employment insurance + social assistance	0.18	0.12	0.09	0.22*	0.14	0.11	0.17	0.10	0.09	0.18*	0.13	0.11
market income + employment insurance + social assistance + tax credit	0.18	0.12	0.09	0.21*	0.14	0.11	0.16	0.10	0.09	0.18*	0.12	0.11
market income + employment insurance + social assistance + family benefits	0.16	0.11	0.09	0.17*	0.12	0.10	0.15	0.10	0.09	0.15*	0.12	0.11
total income	0.15	0.11	0.09	0.16*	0.12	0.10	0.14	0.10	0.09	0.15*	0.11	0.11
after-tax income	0.14	0.10	0.08	0.15*	0.11	0.09	0.13	0.09	0.08	0.13*	0.10	0.10
adjusted income	0.14	0.09	0.08	0.15*	0.11	0.09	0.13	0.09	0.08	0.13*	0.10	0.10
40 to 44 years old												
earnings	0.28	0.12	0.10	0.31*	0.14	0.11	0.23	0.13	0.09	0.24*	0.13	0.12
market income	0.25	0.12	0.10	0.26*	0.14	0.11	0.22	0.13	0.09	0.24*	0.13	0.12
market income + employment insurance	0.22	0.11	0.10	0.24*	0.13	0.11	0.18	0.11	0.09	0.2*	0.12	0.11
market income + employment insurance + social assistance	0.17	0.11	0.10	0.2*	0.13	0.11	0.16	0.11	0.09	0.19*	0.12	0.11
market income + employment insurance + social assistance + tax credit	0.16	0.11	0.09	0.19*	0.13	0.11	0.16	0.11	0.09	0.18*	0.12	0.11
market income + employment insurance + social assistance + family benefits	0.15	0.10	0.09	0.16*	0.12	0.11	0.15	0.11	0.09	0.16*	0.11	0.11
total income	0.15	0.10	0.09	0.16*	0.12	0.10	0.14	0.11	0.09	0.15*	0.11	0.11
after-tax income	0.14	0.09	0.09	0.15*	0.11	0.10	0.13	0.10	0.08	0.13*	0.10	0.11
adjusted income	0.13	0.09	0.09	0.14*	0.10	0.10	0.13	0.10	0.08	0.13*	0.10	0.10
45 to 49 years old												
earnings	0.25	0.13	0.11	0.28*	0.14	0.11	0.21	0.13	0.10	0.21*	0.13	0.12
market income	0.22	0.12	0.11	0.25*	0.14	0.11	0.20	0.12	0.10	0.2*	0.13	0.12
market income + employment insurance	0.20	0.12	0.11	0.23*	0.14	0.11	0.17	0.11	0.10	0.17*	0.12	0.12
market income + employment insurance + social assistance	0.17	0.12	0.11	0.2*	0.14	0.11	0.16	0.11	0.10	0.16*	0.12	0.12
market income + employment insurance + social assistance + tax credit	0.16	0.12	0.11	0.19*	0.14	0.11	0.16	0.11	0.10	0.16*	0.12	0.12
market income + employment insurance + social assistance + family benefits	0.15	0.11	0.11	0.17**	0.13	0.11	0.15	0.11	0.10	0.14*	0.12	0.12
total income	0.15	0.11	0.11	0.16**	0.13	0.11	0.14	0.11	0.09	0.14*	0.12	0.12
after-tax income	0.14	0.11	0.10	0.15	0.12	0.11	0.13	0.11	0.10	0.13*	0.11	0.11
adjusted income	0.13	0.10	0.09	0.14**	0.11	0.10	0.12	0.10	0.09	0.12*	0.10	0.10

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

** Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 5% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table A.4 Income instability and the tax and transfer system, unattached individuals, 1994 to 1999 and 1999 to 2004

	Women						Men					
	1994 to 1999			1999 to 2004			1994 to 1999			1999 to 2004		
	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
25 to 29 years old												
earnings	0.28	0.15	0.11	0.26*	0.14	0.11	0.32	0.16	0.14	0.29*	0.16	0.14
market income	0.27	0.14	0.11	0.25*	0.14	0.11	0.31	0.15	0.14	0.28*	0.16	0.14
market income + employment insurance	0.23	0.13	0.11	0.22*	0.13	0.11	0.25	0.14	0.13	0.24*	0.14	0.14
market income + employment insurance + social assistance	0.21	0.13	0.11	0.21*	0.13	0.11	0.23	0.13	0.13	0.22*	0.14	0.14
market income + employment insurance + social assistance + tax credit	0.21	0.13	0.11	0.20*	0.13	0.11	0.22	0.13	0.13	0.22*	0.14	0.13
total income	0.20	0.12	0.10	0.20*	0.12	0.11	0.22	0.13	0.13	0.22*	0.14	0.13
after-tax income	0.18	0.11	0.09	0.18*	0.11	0.10	0.19	0.12	0.12	0.19*	0.12	0.12
30 to 34 years old												
earnings	0.23	0.10	0.09	0.24*	0.12	0.09	0.27	0.13	0.10	0.26*	0.13	0.12
market income	0.22	0.10	0.09	0.23*	0.11	0.09	0.26	0.12	0.10	0.25*	0.13	0.11
market income + employment insurance	0.19	0.09	0.09	0.20*	0.11	0.09	0.21	0.11	0.10	0.21*	0.12	0.11
market income + employment insurance + social assistance	0.17	0.09	0.09	0.18*	0.11	0.09	0.19	0.11	0.10	0.19*	0.12	0.11
market income + employment insurance + social assistance + tax credit	0.17	0.09	0.09	0.18*	0.10	0.09	0.18	0.11	0.10	0.19*	0.12	0.11
total income	0.16	0.09	0.09	0.17*	0.10	0.09	0.18	0.10	0.10	0.18*	0.11	0.11
after-tax income	0.15	0.08	0.08	0.15*	0.09	0.09	0.16	0.10	0.09	0.17*	0.10	0.10
35 to 39 years old												
earnings	0.22	0.08	0.08	0.23*	0.10	0.09	0.25	0.11	0.09	0.24*	0.11	0.10
market income	0.21	0.08	0.08	0.21*	0.10	0.09	0.25	0.11	0.09	0.23*	0.11	0.10
market income + employment insurance	0.18	0.08	0.08	0.19*	0.09	0.09	0.20	0.10	0.09	0.19*	0.10	0.10
market income + employment insurance + social assistance	0.16	0.08	0.08	0.17*	0.09	0.09	0.18	0.10	0.09	0.17*	0.10	0.10
market income + employment insurance + social assistance + tax credit	0.16	0.08	0.08	0.17*	0.09	0.09	0.17	0.10	0.09	0.16*	0.10	0.10
total income	0.15	0.08	0.08	0.16*	0.09	0.09	0.17	0.09	0.09	0.16*	0.10	0.10
after-tax income	0.14	0.07	0.07	0.15*	0.08	0.08	0.15	0.09	0.08	0.15*	0.09	0.09
40 to 44 years old												
earnings	0.22	0.08	0.06	0.21*	0.09	0.08	0.25	0.11	0.09	0.22*	0.11	0.09
market income	0.21	0.08	0.07	0.20*	0.09	0.08	0.24	0.11	0.09	0.21*	0.11	0.10
market income + employment insurance	0.17	0.08	0.07	0.17*	0.09	0.08	0.19	0.10	0.09	0.18*	0.10	0.10
market income + employment insurance + social assistance	0.16	0.08	0.07	0.16*	0.09	0.08	0.17	0.10	0.09	0.16*	0.10	0.10
market income + employment insurance + social assistance + tax credit	0.16	0.08	0.07	0.16*	0.09	0.08	0.16	0.10	0.09	0.16*	0.10	0.10
total income	0.15	0.07	0.07	0.15*	0.08	0.08	0.16	0.09	0.09	0.15*	0.10	0.09
after-tax income	0.14	0.07	0.06	0.14*	0.08	0.08	0.14	0.09	0.08	0.14*	0.09	0.09
45 to 49 years old												
earnings	0.23	0.09	0.07	0.22*	0.10	0.08	0.25	0.11	0.09	0.22*	0.12	0.09
market income	0.20	0.09	0.07	0.21*	0.09	0.08	0.23	0.11	0.09	0.21*	0.11	0.10
market income + employment insurance	0.17	0.08	0.07	0.18*	0.09	0.08	0.19	0.09	0.09	0.17*	0.10	0.10
market income + employment insurance + social assistance	0.16	0.08	0.07	0.16*	0.09	0.08	0.17	0.09	0.09	0.16*	0.10	0.10
market income + employment insurance + social assistance + tax credit	0.15	0.08	0.07	0.16*	0.09	0.08	0.17	0.09	0.09	0.15*	0.10	0.10
total income	0.14	0.08	0.07	0.15*	0.09	0.08	0.16	0.09	0.09	0.15*	0.10	0.10
after-tax income	0.13	0.08	0.06	0.14*	0.08	0.07	0.14	0.08	0.08	0.13*	0.09	0.09

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table B.1 Earnings instability, 1984 to 1989, 1994 to 1999 and 1999 to 2004

	1984 to 1989	1994 to 1999	1999 to 2004	Percentage change	1984 to 1989			1994 to 1999			1999 to 2004			Relative instability
					Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top	
Two-parent husband														
25 to 29 (years)	0.17	0.20	0.20	18%*	0.25	0.13	0.12	0.31	0.15	0.13	0.28	0.15	0.13	2.15***
30 to 34	0.15	0.18	0.18	20%*	0.23	0.12	0.11	0.28	0.13	0.12	0.27	0.13	0.13	2.08***
35 to 39	0.15	0.17	0.17	13%*	0.22	0.11	0.10	0.27	0.12	0.11	0.24	0.12	0.12	2.00***
40 to 44	0.16	0.17	0.16	0%*	0.23	0.12	0.11	0.26	0.12	0.11	0.24	0.11	0.11	2.18***
45 to 49	0.17	0.18	0.17	0%	0.25	0.14	0.12	0.28	0.13	0.11	0.25	0.13	0.12	2.08***
Lone parent male														
25 to 29 (years)	0.29	0.41	0.36	24%	0.52	0.22	0.11	0.72	0.31	0.15	0.61	0.33	0.11	5.55***
30 to 34	0.23	0.33	0.35	52%*	0.45	0.12	0.10	0.61	0.22	0.11	0.58	0.28	0.13	4.46***
35 to 39	0.21	0.26	0.27	29%*	0.40	0.14	0.09	0.48	0.16	0.12	0.46	0.20	0.13	3.54***
40 to 44	0.23	0.24	0.27	17%*	0.44	0.14	0.11	0.43	0.19	0.10	0.47	0.16	0.12	3.92***
45 to 49	0.22	0.40	0.26	18%*	0.37	0.13	0.13	0.61	0.19	0.11	0.43	0.16	0.13	3.31***
Lone parent female														
25 to 29 (years)	0.47	0.47	0.49	4%	0.70	0.43	0.14	0.68	0.43	0.21	0.71	0.39	0.20	3.55***
30 to 34	0.34	0.41	0.38	12%*	0.59	0.27	0.10	0.67	0.34	0.14	0.61	0.32	0.15	4.07***
35 to 39	0.30	0.32	0.34	13%*	0.55	0.20	0.11	0.57	0.25	0.12	0.56	0.25	0.13	4.31***
40 to 44	0.33	0.28	0.30	-9%	0.59	0.20	0.14	0.52	0.18	0.12	0.53	0.19	0.13	4.08***
45 to 49	0.31	0.28	0.30	-3%	0.53	0.22	0.16	0.50	0.19	0.12	0.50	0.19	0.13	3.85***
Unattached male														
25 to 29 (years)	0.26	0.32	0.28	8%*	0.44	0.20	0.11	0.50	0.19	0.14	0.41	0.18	0.14	2.93***
30 to 34	0.25	0.25	0.25	0%	0.46	0.17	0.09	0.44	0.15	0.11	0.41	0.15	0.12	3.42***
35 to 39	0.21	0.22	0.21	0%	0.40	0.14	0.09	0.41	0.13	0.09	0.35	0.13	0.11	3.18***
40 to 44	0.21	0.22	0.20	-5%	0.40	0.14	0.08	0.41	0.13	0.09	0.35	0.13	0.10	3.50***
45 to 49	0.22	0.22	0.20	-9%	0.41	0.15	0.09	0.41	0.14	0.10	0.38	0.14	0.10	3.80***
Unattached female														
25 to 29 (years)	0.20	0.25	0.23	15%*	0.36	0.13	0.09	0.41	0.17	0.11	0.35	0.15	0.12	2.92***
30 to 34	0.17	0.20	0.20	18%*	0.31	0.10	0.08	0.36	0.11	0.09	0.32	0.13	0.10	3.20***
35 to 39	0.15	0.19	0.18	20%*	0.29	0.09	0.07	0.35	0.09	0.08	0.32	0.10	0.09	3.56***
40 to 44	0.16	0.18	0.17	6%*	0.31	0.09	0.06	0.37	0.10	0.07	0.30	0.10	0.09	3.33***
45 to 49	0.17	0.20	0.18	6%**	0.34	0.10	0.06	0.41	0.13	0.07	0.34	0.12	0.08	4.25***

* Indicates that the 1999-to-2004 and 1994-to-1999 differences are positive and significant at the 1% level.

** Indicates that the 1999-to-2004 and 1994-to-1999 differences are positive and significant at the 5% level.

*** Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table B.2 Income instability and the tax and transfer system, two-parent families, 1994 to 1999 and 1999 to 2004

	1994 to 1999			1999 to 2004			
	Bottom	Middle	Top	Bottom	Middle	Top	Relative instability
25 to 29 years old							
earnings	0.31	0.15	0.13	0.28*	0.15	0.13	2.15
market income	0.29	0.15	0.13	0.27*	0.15	0.13	2.08
market income + employment insurance	0.25	0.13	0.11	0.23*	0.13	0.12	1.92
market income + employment insurance + social assistance	0.21	0.13	0.11	0.20*	0.12	0.12	1.67
market income + employment insurance + social assistance + tax credit	0.20	0.13	0.11	0.20*	0.12	0.12	1.67
market income + employment insurance + social assistance + family benefits	0.19	0.13	0.11	0.18*	0.12	0.12	1.50
total income	0.18	0.12	0.11	0.17*	0.12	0.11	1.55
after-tax income	0.16	0.11	0.10	0.15*	0.11	0.10	1.50
adjusted income	0.17	0.13	0.12	0.16*	0.13	0.13	1.23
30 to 34 years old							
earnings	0.28	0.13	0.12	0.27*	0.13	0.13	2.08
market income	0.26	0.13	0.12	0.25*	0.13	0.12	2.08
market income + employment insurance	0.23	0.12	0.11	0.22*	0.11	0.11	2.00
market income + employment insurance + social assistance	0.20	0.12	0.11	0.20*	0.11	0.11	1.82
market income + employment insurance + social assistance + tax credit	0.19	0.12	0.11	0.19*	0.11	0.11	1.73
market income + employment insurance + social assistance + family benefits	0.18	0.11	0.11	0.17*	0.11	0.11	1.55
total income	0.17	0.11	0.11	0.17*	0.11	0.11	1.55
after-tax income	0.16	0.10	0.10	0.15*	0.10	0.11	1.36
adjusted income	0.16	0.11	0.11	0.15*	0.11	0.12	1.25
35 to 39 years old							
earnings	0.27	0.12	0.11	0.24*	0.12	0.12	2.00
market income	0.25	0.12	0.11	0.23*	0.12	0.12	1.92
market income + employment insurance	0.22	0.11	0.11	0.21*	0.11	0.11	1.91
market income + employment insurance + social assistance	0.19	0.11	0.11	0.19*	0.11	0.11	1.73
market income + employment insurance + social assistance + tax credit	0.19	0.11	0.11	0.18*	0.11	0.11	1.64
market income + employment insurance + social assistance + family benefits	0.17	0.11	0.11	0.17*	0.11	0.11	1.55
total income	0.17	0.11	0.11	0.16*	0.10	0.11	1.45
after-tax income	0.15	0.10	0.10	0.15*	0.10	0.10	1.50
adjusted income	0.15	0.10	0.10	0.15*	0.10	0.11	1.36
40 to 44 years old							
earnings	0.26	0.12	0.11	0.24*	0.11	0.11	2.18
market income	0.25	0.12	0.11	0.23*	0.11	0.12	1.92
market income + employment insurance	0.22	0.11	0.11	0.20*	0.11	0.11	1.82
market income + employment insurance + social assistance	0.20	0.11	0.11	0.19*	0.11	0.11	1.73
market income + employment insurance + social assistance + tax credit	0.19	0.11	0.11	0.18*	0.11	0.11	1.64
market income + employment insurance + social assistance + family benefits	0.18	0.11	0.11	0.17*	0.11	0.11	1.55
total income	0.17	0.11	0.11	0.16*	0.11	0.11	1.45
after-tax income	0.16	0.11	0.10	0.15*	0.10	0.10	1.50
adjusted income	0.16	0.10	0.10	0.15*	0.10	0.11	1.36
45 to 49 years old							
earnings	0.28	0.13	0.11	0.25*	0.13	0.12	2.08
market income	0.24	0.14	0.11	0.23*	0.12	0.12	1.92
market income + employment insurance	0.22	0.12	0.11	0.21*	0.12	0.11	1.91
market income + employment insurance + social assistance	0.20	0.12	0.11	0.20*	0.12	0.11	1.82
market income + employment insurance + social assistance + tax credit	0.20	0.12	0.11	0.19*	0.12	0.11	1.73
market income + employment insurance + social assistance + family benefits	0.19	0.12	0.11	0.18*	0.12	0.11	1.64
total income	0.18	0.12	0.11	0.17*	0.12	0.11	1.55
after-tax income	0.14	0.08	0.11	0.16*	0.11	0.11	1.45
adjusted income	0.13	0.10	0.10	0.15*	0.10	0.10	1.50

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table B.3 Income instability and the tax and transfer system, lone parents, 1994 to 1999 and 1999 to 2004

	Women						Men					
	1994 to 1999			1999 to 2004			1994 to 1999			1999 to 2004		
	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
25 to 29 years old												
earnings	0.68	0.43	0.21	0.71*	0.39	0.20	0.72	0.31	0.15	0.61*	0.33	0.11
market income	0.60	0.39	0.20	0.64*	0.37	0.20	0.69	0.31	0.15	0.60*	0.33	0.11
market income + employment insurance	0.56	0.34	0.18	0.60*	0.31	0.17	0.61	0.22	0.13	0.54*	0.28	0.10
market income + employment insurance + social assistance	0.24	0.23	0.15	0.31*	0.25	0.16	0.33	0.17	0.12	0.31*	0.27	0.10
market income + employment insurance + social assistance + tax credit	0.23	0.22	0.15	0.29*	0.24	0.16	0.32	0.17	0.12	0.30*	0.26	0.10
market income + employment insurance + social assistance + family benefits	0.20	0.20	0.14	0.22*	0.20	0.14	0.30	0.16	0.12	0.24*	0.23	0.09
total income	0.19	0.20	0.14	0.22*	0.19	0.14	0.29	0.16	0.12	0.24*	0.22	0.09
after-tax income	0.19	0.18	0.12	0.22*	0.18	0.13	0.28	0.14	0.10	0.23*	0.19	0.08
adjusted income	0.19	0.18	0.12	0.22*	0.19	0.13	0.28	0.14	0.10	0.23*	0.19	0.08
30 to 34 years old												
earnings	0.67	0.34	0.14	0.61*	0.32	0.15	0.61	0.22	0.11	0.58*	0.28	0.13
market income	0.58	0.32	0.14	0.55*	0.30	0.15	0.58	0.22	0.11	0.55*	0.27	0.13
market income + employment insurance	0.54	0.28	0.13	0.50*	0.25	0.14	0.50	0.18	0.10	0.48*	0.23	0.12
market income + employment insurance + social assistance	0.25	0.21	0.13	0.31*	0.22	0.13	0.29	0.16	0.10	0.30*	0.21	0.12
market income + employment insurance + social assistance + tax credit	0.24	0.21	0.12	0.29*	0.21	0.13	0.28	0.15	0.10	0.28*	0.21	0.12
market income + employment insurance + social assistance + family benefits	0.20	0.19	0.12	0.21*	0.18	0.12	0.26	0.14	0.10	0.24*	0.19	0.11
total income	0.20	0.18	0.12	0.21*	0.18	0.12	0.24	0.14	0.09	0.23*	0.19	0.11
after-tax income	0.19	0.17	0.10	0.20*	0.17	0.11	0.22	0.12	0.08	0.22*	0.17	0.10
adjusted income	0.19	0.17	0.10	0.20*	0.17	0.11	0.22	0.13	0.08	0.22*	0.17	0.11
35 to 39 years old												
earnings	0.57	0.25	0.12	0.56*	0.25	0.13	0.48	0.16	0.12	0.46*	0.20	0.13
market income	0.49	0.23	0.12	0.50*	0.24	0.13	0.45	0.16	0.11	0.43*	0.19	0.13
market income + employment insurance	0.45	0.21	0.11	0.46*	0.21	0.13	0.40	0.15	0.11	0.38*	0.17	0.12
market income + employment insurance + social assistance	0.25	0.18	0.11	0.30*	0.19	0.12	0.29	0.14	0.11	0.28*	0.16	0.12
market income + employment insurance + social assistance + tax credit	0.24	0.18	0.11	0.28*	0.19	0.12	0.28	0.14	0.11	0.27*	0.16	0.12
market income + employment insurance + social assistance + family benefits	0.21	0.16	0.11	0.22*	0.16	0.12	0.25	0.14	0.11	0.23*	0.15	0.12
total income	0.20	0.16	0.11	0.21*	0.16	0.12	0.23	0.13	0.10	0.22*	0.14	0.12
after-tax income	0.20	0.15	0.10	0.21*	0.15	0.11	0.22	0.12	0.10	0.21*	0.12	0.11
adjusted income	0.20	0.15	0.10	0.20*	0.15	0.11	0.22	0.12	0.10	0.21*	0.12	0.11
40 to 44 years old												
earnings	0.52	0.18	0.12	0.53*	0.19	0.13	0.43	0.19	0.10	0.47*	0.16	0.12
market income	0.44	0.17	0.11	0.44*	0.19	0.13	0.41	0.18	0.09	0.45*	0.16	0.12
market income + employment insurance	0.41	0.16	0.11	0.41*	0.17	0.12	0.36	0.16	0.09	0.40*	0.15	0.12
market income + employment insurance + social assistance	0.25	0.15	0.11	0.29*	0.17	0.12	0.27	0.16	0.09	0.31*	0.15	0.12
market income + employment insurance + social assistance + tax credit	0.24	0.15	0.11	0.28*	0.16	0.12	0.26	0.16	0.09	0.30*	0.15	0.12
market income + employment insurance + social assistance + family benefits	0.22	0.14	0.11	0.22*	0.15	0.12	0.24	0.15	0.09	0.25*	0.14	0.12
total income	0.21	0.14	0.11	0.21*	0.15	0.12	0.22	0.15	0.09	0.22*	0.13	0.12
after-tax income	0.20	0.13	0.10	0.20*	0.14	0.11	0.20	0.14	0.08	0.20*	0.13	0.11
adjusted income	0.19	0.12	0.10	0.20*	0.13	0.11	0.20	0.13	0.08	0.20*	0.12	0.10
45 to 49 years old												
earnings	0.50	0.19	0.12	0.50*	0.19	0.13	0.61	0.19	0.11	0.43*	0.16	0.13
market income	0.40	0.18	0.12	0.43*	0.19	0.13	0.62	0.17	0.11	0.40*	0.16	0.13
market income + employment insurance	0.37	0.17	0.12	0.41*	0.18	0.13	0.52	0.16	0.11	0.35*	0.15	0.13
market income + employment insurance + social assistance	0.23	0.16	0.12	0.30*	0.18	0.13	0.29	0.16	0.11	0.28*	0.15	0.13
market income + employment insurance + social assistance + tax credit	0.42	0.16	0.12	0.28*	0.17	0.13	0.28	0.16	0.11	0.27*	0.15	0.13
market income + employment insurance + social assistance + family benefits	0.25	0.16	0.11	0.24*	0.16	0.12	0.26	0.15	0.11	0.24*	0.14	0.13
total income	0.24	0.15	0.11	0.23*	0.16	0.12	0.24	0.15	0.10	0.23*	0.14	0.13
after-tax income	0.24	0.15	0.11	0.22*	0.16	0.12	0.22	0.14	0.11	0.22*	0.13	0.12
adjusted income	0.23	0.14	0.10	0.21*	0.15	0.11	0.22	0.14	0.10	0.21*	0.12	0.11

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table B.4 Income instability and the tax and transfer system, unattached individuals, 1994 to 1999 and 1999 to 2004

	Women						Men					
	1994 to 1999			1999 to 2004			1994 to 1999			1999 to 2004		
	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
25 to 29 years old												
earnings	0.41	0.17	0.11	0.35*	0.15	0.12	0.50	0.19	0.14	0.41*	0.18	0.14
market income	0.38	0.16	0.11	0.32*	0.15	0.12	0.48	0.19	0.14	0.38*	0.18	0.14
market income + employment insurance	0.33	0.15	0.11	0.29*	0.14	0.11	0.41	0.16	0.13	0.34*	0.16	0.14
market income + employment insurance + social assistance	0.27	0.14	0.11	0.25*	0.14	0.11	0.30	0.16	0.13	0.28*	0.16	0.14
market income + employment insurance + social assistance + tax credit	0.26	0.14	0.11	0.24*	0.13	0.11	0.29	0.16	0.13	0.27*	0.16	0.14
total income	0.26	0.14	0.11	0.24*	0.13	0.11	0.29	0.15	0.13	0.26*	0.15	0.14
after-tax income	0.23	0.13	0.10	0.21*	0.12	0.10	0.25	0.14	0.12	0.24*	0.14	0.12
30 to 34 years old												
earnings	0.36	0.11	0.09	0.32*	0.13	0.10	0.44	0.15	0.11	0.41*	0.15	0.12
market income	0.33	0.11	0.09	0.30*	0.12	0.10	0.42	0.15	0.11	0.38*	0.15	0.12
market income + employment insurance	0.28	0.10	0.09	0.26*	0.12	0.10	0.34	0.13	0.10	0.33*	0.13	0.12
market income + employment insurance + social assistance	0.23	0.10	0.09	0.22*	0.11	0.10	0.26	0.13	0.10	0.27*	0.13	0.12
market income + employment insurance + social assistance + tax credit	0.22	0.10	0.09	0.21*	0.11	0.10	0.25	0.12	0.10	0.26*	0.13	0.12
total income	0.21	0.10	0.09	0.21*	0.11	0.10	0.24	0.12	0.10	0.25*	0.12	0.12
after-tax income	0.19	0.09	0.08	0.19*	0.10	0.09	0.22	0.11	0.09	0.23*	0.11	0.10
35 to 39 years old												
earnings	0.35	0.09	0.08	0.32*	0.10	0.09	0.41	0.13	0.09	0.35*	0.13	0.11
market income	0.32	0.09	0.08	0.29*	0.10	0.09	0.39	0.13	0.09	0.34*	0.13	0.11
market income + employment insurance	0.27	0.09	0.08	0.26*	0.10	0.09	0.32	0.11	0.09	0.29*	0.12	0.10
market income + employment insurance + social assistance	0.21	0.09	0.08	0.22*	0.10	0.09	0.25	0.11	0.09	0.23*	0.12	0.10
market income + employment insurance + social assistance + tax credit	0.21	0.08	0.08	0.21*	0.09	0.09	0.24	0.11	0.09	0.22*	0.11	0.10
market income + employment insurance + social assistance + family benefits	0.21	0.08	0.08	0.21*	0.09	0.09	0.24	0.11	0.09	0.22*	0.11	0.10
total income	0.20	0.08	0.08	0.20*	0.09	0.09	0.23	0.11	0.09	0.21*	0.11	0.10
aftax	0.18	0.08	0.08	0.19*	0.09	0.08	0.21	0.10	0.09	0.19*	0.10	0.09
adjusted	0.18	0.08	0.08	0.19*	0.09	0.08	0.21	0.10	0.09	0.19*	0.10	0.09
40 to 44 years old												
earnings	0.37	0.10	0.07	0.30*	0.10	0.09	0.41	0.13	0.09	0.35*	0.13	0.10
market income	0.33	0.10	0.07	0.28*	0.11	0.09	0.39	0.13	0.10	0.33*	0.13	0.10
market income + employment insurance	0.28	0.09	0.07	0.24*	0.10	0.09	0.32	0.11	0.09	0.29*	0.11	0.10
market income + employment insurance + social assistance	0.23	0.09	0.07	0.21*	0.10	0.09	0.25	0.11	0.09	0.23*	0.11	0.10
market income + employment insurance + social assistance + tax credit	0.22	0.09	0.07	0.20*	0.10	0.09	0.24	0.11	0.09	0.22*	0.11	0.10
total income	0.21	0.08	0.07	0.19*	0.09	0.09	0.23	0.10	0.09	0.21*	0.11	0.10
after-tax income	0.19	0.08	0.06	0.18*	0.09	0.08	0.21	0.10	0.09	0.19*	0.10	0.10
45 to 49 years old												
earnings	0.41	0.13	0.07	0.34*	0.12	0.08	0.41	0.14	0.10	0.38*	0.14	0.10
market income	0.32	0.11	0.07	0.30*	0.11	0.08	0.36	0.13	0.10	0.34*	0.13	0.10
market income + employment insurance	0.27	0.10	0.07	0.27*	0.10	0.08	0.30	0.11	0.09	0.29*	0.12	0.10
market income + employment insurance + social assistance	0.23	0.10	0.07	0.22*	0.10	0.08	0.25	0.11	0.09	0.23*	0.12	0.10
market income + employment insurance + social assistance + tax credit	0.22	0.10	0.07	0.21*	0.10	0.08	0.24	0.11	0.09	0.22*	0.11	0.10
total income	0.20	0.10	0.07	0.20*	0.09	0.08	0.23	0.11	0.09	0.21*	0.11	0.10
after-tax income	0.22	0.09	0.07	0.19*	0.09	0.08	0.21	0.10	0.09	0.20*	0.11	0.10

* Indicates that the bottom-top differences in 1999 to 2004 are positive and significant at the 1% level.

Source: Statistics Canada, Longitudinal Administrative Data base.

Table C Sample size

	Main Sample			Broad Sample		
	1984 to 1989	1994 to 1999	1999 to 2004	1984 to 1989	1994 to 1999	1999 to 2004
Two-parent families						
25 to 29 (years)	48,175	29,565	27,935	49,455	31,530	29,095
30 to 34	57,110	53,715	45,495	58,550	57,225	47,870
35 to 39	58,020	61,790	63,755	59,330	65,780	67,110
40 to 44	46,565	58,545	67,680	47,595	61,835	70,945
45 to 49	39,750	55,650	61,575	40,780	58,445	64,125
Lone parents male						
25 to 29 (years)	100	35	60	115	50	75
30 to 34	150	135	160	170	180	210
35 to 39	265	280	370	290	350	450
40 to 44	220	295	440	250	355	525
45 to 49	170	215	360	185	265	440
Lone parents female						
25 to 29 (years)	965	975	1,470	1,490	1,600	2,225
30 to 34	1,480	1,950	2,635	1,920	2,890	3,570
35 to 39	1,700	2,780	4,040	2,125	3,680	5,185
40 to 44	1,145	2,360	3,455	1,480	3,005	4,305
45 to 49	640	1,335	2,010	865	1,725	2,560
Unattached male						
25 to 29 (years)	3,420	2,680	2,255	3,800	3,090	2,490
30 to 34	3,265	3,980	3,170	3,675	4,480	3,505
35 to 39	2,445	3,920	4,420	2,705	4,380	4,830
40 to 44	1,720	3,285	4,275	1,920	3,690	4,710
45 to 49	1,465	2,690	3,540	1,660	3,040	3,945
Unattached female						
25 to 29 (years)	3,085	2,180	1,760	3,250	2,385	1,865
30 to 34	3,230	2,975	2,190	3,410	3,205	2,330
35 to 39	2,250	2,935	2,950	2,380	3,160	3,140
40 to 44	1,740	3,095	3,300	1,860	3,395	3,520
45 to 49	1,565	3,245	3,960	1,705	3,665	4,315

Source: Statistics Canada, Longitudinal Administrative Data base.

References

Bane, M.J. and D.T. Ellwood. 1986. "Slipping into and out of Poverty: The Dynamics of Spells." *Journal of Human Resources*. 21, 1: 1–23.

Beach, C.M, R. Finnie and D. Gray. 2003. "Earnings Variability and Earnings Instability of Women and Men in Canada: How do the 1990s Compare to the 1980s?" *Canadian Public Policy*. 29, 1: 41–S64.

Chung, L. 2004. "Low-paid Workers: How Many Live in Low-income Families?" *Perspectives on Labour and Income*. 16, 4: 23–32. Catalogue no. 75-001-XPE. Ottawa: Statistics Canada.

Gottschalk, P. and R. Moffitt. 1994. "The Growth of Earnings Instability in the US Labor Market." *Brookings Papers on Economic Activity*. 2: 217–272.

Myles, J., F. Hou, G. Picot and K. Myers. 2006. *Why Did Employment and Earnings Rise Among Lone Mothers During the 1980s and 1990s?* Analytical Studies. Research Paper Series, Catalogue no. 11F0019M, no. 282. Ottawa: Statistics Canada.

Morissette, R. and Y. Ostrovsky. 2005. "The Instability of Family Earnings and Family Income in Canada, 1986 to 1991 and 1996 to 2001." *Canadian Public Policy*. 31, 3: 273–302.

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